

Working with WPS—PLUS

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Preface

When word processors were first introduced, about 15 years ago, they were considered the latest significant step in enhancing business productivity. Times have changed, and now corporations are taking a fresh look at the word and document processing needs of the office of today. With WPS, Digital Equipment Corporation had one of the first word and document processing systems on the market. Now, with the latest version of WPS-PLUS, Digital addresses the needs of an increasingly sophisticated audience and continues to lead the way in office automation.

Working With WPS-PLUS will give you examples of how to use WPS-PLUS to make your workday more productive, how to speed up routine tasks, and even how to put some fun in your workday.

Purpose

Although there are many technical reference guides on the market, very few of them give you practical information to use every day to make your workday more productive. We wrote *Working With WPS-PLUS* to fit this requirement — to serve as an easy-to-use guide with useful information to keep next to your terminal as you use WPS-PLUS.

Overview

In *Working With WPS-PLUS*, we'll point out information, sometimes overlooked in the documentation, to help you use WPS-PLUS more efficiently. We will show you quicker, better, and easier ways to accomplish tasks or solve problems.

We'll describe and give you examples of the tools you need to create a document. We'll show you how to create and store abbreviation documents, library documents, user-defined procedures, and rulers. We'll show you how to draw diagrams using WPS-PLUS, how to create bar charts, organization charts, a banner for your company newsletter, and even a family tree.

We'll show you how to generate a table of contents and an index, how to create footnotes and reference notes, and how to use options such as the grammar checker, the spell checker and the thesaurus.

The information in *Working With WPS-PLUS* is a combined result of our experience using WPS-PLUS and interviews with customers and employees. Valuable information was also contributed by Digital's course developers, instructors, the WPS-PLUS technical development team, and customers who participated in WPS-PLUS courses. Additionally, some customers responded to a questionnaire we distributed requesting tips to include in this book. We also visited customer sites to get additional information. *Working With WPS-PLUS* is a result of this research.

Audience

Working With WPS-PLUS addresses the needs of experienced word processing users in all areas of business, education, and industry. Whether you are new to the WPS-PLUS system, an old hand, or anywhere in the middle, *Working With WPS-PLUS* will provide you with valuable information designed to make your workday easier.

Structure

Each section of *Working With WPS-PLUS* focuses on a specific function. It isn't necessary to start at the beginning of the book; within each chapter, the material moves from the simple to the more complex. The index at the back of the book helps you quickly locate the information you need.

Other Related Books

WPS-PLUS/VMS Installation and System Management

WPS-PLUS on VMS

WPS-PLUS on DOS

WPS-PLUS/VMS Editor Functions

WPS-PLUS/VMS List and Sort Processing

WPS-PLUS/VMS Quick Lookup

WPS-PLUS/VMS Applications for Advanced Users

WPS-PLUS/VMS Glossary

DECpage Getting Started

DECpage Style Samples

DECpage Style Designer's Guide

DECpage User's Guide

DECpage Quick Lookup

DECpage Express

How to Use this Book

Conventions

Glance through the conventions below. They will help you understand the typing conventions we used throughout the book.

- **UPPERCASE** Identifies a WPS-PLUS editor function. For example: Press **ADVANCE PARA** means press the **ADVANCE** key and then the **PARA** key.
- **CTRL/C** Means hold down the **CTRL** key while you press the designated letter key. For example: Press **CTRL/C**.
- **GOLD F** Means press the **GOLD** key, labeled PF1 on some keypads, and then the function key. For example: Press **GOLD F**.
- **Parentheses** Gives some additional information that helps you find the key to press. For example: Press **GOLD M (Menu)**, means press the **GOLD** key, then the **M** key which is also the Menu key.
- **Press** Refers to a keyboard command. For example: Press **GOLD L (Libry)** means press the **GOLD** key and then the **L** key.
- **Type or Enter** Tells you to enter characters or text.

The applications in this book are based on VMS Version 5.0 and WPS-PLUS/VMS Version 3.0.

Function Keys

Some WPS-PLUS menus extend over more than one screen. Use the following function keys, the dark gray keys, to navigate between the screens:

EXIT	Returns to the previous menu.
MAIN SCREEN	Returns to the main screen.
NEXT SCREEN	Displays the next screen of the current menu.
PREV SCREEN	Displays the previous screen of the current menu.

Information Access Aids

Information access aids are tools provided by WPS-PLUS to help you get additional information on a specific topic.

Getting Help

Whenever you need help filling out a form or you aren't sure of the meaning of a specific function, WPS-PLUS will display help messages on the screen. Press the **HELP** key or **GOLD H** for more information about a topic.

Training

WPS-PLUS comes with a training course to teach you more about WPS-PLUS. To take this course, enter **TR** at the Word and Document Processing menu and follow the instructions on the screen.

User Access Aids

User access aids are tools you can access to help solve problems.

Returning to DCL Level

DCL is Digital's Command Language. If you are working through the VAX system, you can temporarily exit WPS-PLUS and perform a VAX function, such as reading your mail or getting a listing of your

files. You perform all these functions while in your [.WPSPLUS] directory. You cannot access any of your login commands the way you do from your main directory.

To exit WPS-PLUS and return to DCL level, press \$ from the Word and Document Processing menu. At the \$ prompt, read your mail, copy files, or perform any other system function. Press the RETURN key to return to WPS-PLUS.



Create a command file in your [.WPSPLUS] directory and call it OAINI.COM. Enter the following text:

\$@SYS\$LOGIN:LOGIN WPS

This command file allows you to use the symbols and logicals stored in your main level LOGIN.COM file. These symbols and logicals remain active for all DCL sessions until you exit WPS-PLUS.

If you don't want your entire LOGIN.COM file to execute when accessing DCL from WPS-PLUS, add the following line to your LOGIN.COM at a point where you would like it to stop processing:

\$ IF P1 .EQS. "WPS" THEN EXIT

Recovering Corrupted Documents

It's unlikely that your document will become corrupted when in WPS-PLUS. If this does happen, however, you can take steps that might help to recover your document and remove the corrupted section. Create a new document, give it a different title, and press **GOLD G** (Get Docmt). Enter **DOC** at the prompt and enter the title and document number of the corrupted document. The old document is copied into the newly created document, with the corrupted sections deleted. Now delete the original corrupted document and continue with your editing.

Chapter 1

Customizing Your Work Environment

In this chapter, we'll review some basic WPS-PLUS tools: rulers, user-defined processing, abbreviation documents, and library documents. You can use these tools to create letters, memos, reports, or other documents.

1.1 Rulers

Rulers appear on the screen as a horizontal line of dots and characters, divided into units of ten. Each character indicates a ruler setting, such as a margin, a tab stop, or an indentation point.

In the sample ruler, shown below as it appears on the screen, L indicates the left margin, T indicates a tab position, and R indicates the right margin.

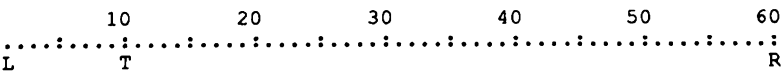


Table 1.1 lists the different ruler settings you can use to change the appearance of your document.

Table 1.1 Ruler Settings

Left-Margin Characters

- F Prints half-line-spaced text
- L Prints single-spaced text
- N Prints line-and-a-half-spaced text
- D Prints double-spaced text

Right-Margin Characters

- R Prints text with a ragged-right margin
- J Prints text with a right-justified margin

Tab Position Characters

- T Left-justified tab position to align words in columns
- > Right-justified tab position to align words or whole numbers on the right
- . Decimal-aligned tab marker

Indenting Characters

- P Indents a paragraph after a paragraph marker
- W Indents text after a word wrap

Other Characters

- C Defines a centering point other than midway between the left and the right margin; text is centered on the centering point
 - H Defines a hyphenation zone to produce a more even right margin
-

1.1.1 Creating Rulers

You can place any number of rulers in a document and change the settings of the ruler whenever the text changes. A ruler remains in effect until another ruler is encountered. Follow these steps to create a ruler:

Step 1

Press **GOLD R** (Ruler) to call up the ruler. Change the ruler settings by using the directional keys.

Use the **LEFT** or **RIGHT ARROW** or the **ADVANCE** or **BACKUP** keys to move from one character on the ruler to another. Use the **ADVANCE** or **BACKUP WORD** keys to move along the ruler from one word to another or one tab position to another. Use the **ADVANCE** or **BACKUP LINE** keys to move to the end of the ruler.

Step 2

Press **RETURN** to embed the new ruler setting in your document. Press **GOLD R** if you change your mind and want to keep the existing ruler.



Press **GOLD ADVANCE** instead of **RETURN** to rewrap the text following the new ruler and place the cursor at the next ruler setting in your document.

1.1.2

Storing Rulers

The same document often requires a number of different rulers. Instead of having to create a new ruler whenever your text changes, you can store your rulers and call up the one you need each time the text changes. For example, you may type a document whose text is mostly double-spaced with 1-inch margins but partly right-justified and single-spaced, with 1½-inch margins.

With WPS-PLUS, you don't have to create those new rulers each time you change text size. You can, in fact, store up to nine different ruler settings in addition to your standard ruler. For instance, you can use ruler 1 for double-spaced text, ruler 2 for single-spaced text with a right-justified margin, ruler 3 for printing envelopes, and ruler 4 for mailing labels. Follow these steps to store your rulers:

Step 1

Press **GOLD R (Ruler)** To call up the ruler. Change the margin and tab settings in the ruler by using the **LEFT** or **RIGHT ARROW** keys, or the **ADVANCE** or **BACKUP** keys, to move along the ruler.

Step 2

When you're ready to store the ruler, hold down the **SHIFT** key and enter any number from 1 to 9. The ruler settings will be stored in **WPS-PLUS** under the number you selected. Press **RETURN** to embed the new ruler in your document, or press **GOLD ADVANCE** to rewrap the text following the new ruler and place the cursor at the next ruler setting in your document.



The number 0 stores the standard ruler. As a general rule, use 0 to store a ruler only if you want to change the standard ruler you see when you first create a document.

1.1.3 *Recalling Rulers*

To recall a stored ruler setting, press **GOLD R (Ruler)** to display the ruler you are currently using. Enter the number of the ruler you want to use. For example, enter 1 to call up the ruler settings you saved as ruler 1, or enter 0 to call up your standard ruler settings. Press **RETURN** to embed the new ruler in your document.

1.1.4 *Deleting Rulers*

To delete a ruler, press the **DEL WORD** key while the ruler is displayed.

1.1.5 *A Master Plan for Rulers*

Make a list of the documents you type regularly and their different ruler settings, like the one shown in Table 1.2. If you use both pica (10-pitch) and elite (12-pitch) type size, include them as well.

Table 1.2 Master Plan

Ruler	For	Pitch	Margins	Other Settings
0	Letters/memos	10	L=1, R=65	T=10, T=40, T=50
1	Letters/memos	12	L=1, R=78	T=10, T=40, T=50
2	Reports	10	D=1, R=65	T=6, H=60
3	Reports	12	D=1, R=78	T=6, H=73
4	New products	10	D=1, J=60	T=10, H=55
5	New products	12	D=1, J=72	T=10, H=67
6	Newsletter	10	L=1, J=31	T=3, H=28
7	Newsletter	12	L=1, J=37	T=3, H=34
8	Envelopes	10	L=1, R=43	
9	Envelopes	12	L=1, R=51	

Spending the time to make a master plan of the documents and ruler settings you frequently use will mean spending less time recreating these settings over and over again.

1.2 User-Defined Processing

There are always some word processing and office routines you find yourself frequently repeating. You may be using the same sequence of keystrokes to format and print a document, or you may be creating the same ruler for a bulleted list. To eliminate these repetitive keystrokes and save time, store these keystrokes in a User-Defined Process (UDP). You can then recall this UDP whenever you use these keystrokes.

It's important to plan ahead when you define a UDP. Go through each series of keystrokes manually, and record these keystrokes on paper. For a complete list of keys to use when you define a UDP, see Table 1.3 at the end of this chapter.

1.2.1 *Function Key UDPs*

You can assign eight UDPs to four of the function keys (the dark gray keys running across the top of the keyboard). These four keys are in the upper right corner of the keyboard. You can then invoke (or recall) a UDP by pressing one of these four keys, marked as **F17** through **F20**, or by first pressing the **GOLD** key and then one of these four keys. The use of the **GOLD** key with one of the four function keys (**F17** through **F20**) identifies the key to which the UDP has been assigned as **GOLD F17**, **GOLD F18**, **GOLD F19**, or **GOLD F20**. Save these function key UDPs for tasks you perform regularly, such as filing and printing a document.

Creating Function Key UDPs

To file a document and print it on your laser printer with the existing print settings, you can enter the following keystrokes:

GOLD F	To file the document
P RETURN	To call up the Printing Document menu
F13 SYS\$PRINT	To rub out the existing Document Destination field and add a new destination
TAB F13 LN03	To rub out the existing Printer Type and add the laser printer
RETURN	To print the document

Follow these steps to create a function key UDP to file and print your document:

Step 1

Select the User-Defined Process (**UD**) option from the Word and Document Processing menu. The screen displays the User-Defined Process Maintenance menu. See Figure 1.1.

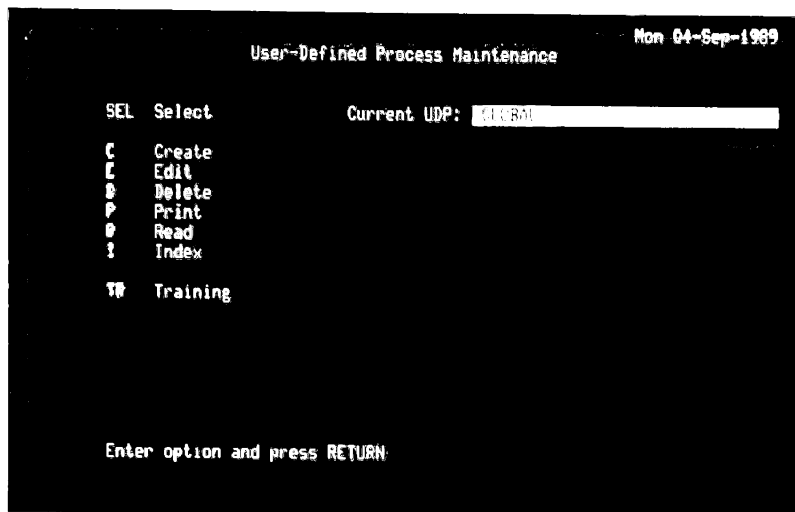


Figure 1.1 User-Defined Process Maintenance Menu

Step 2

Enter **C** to create a new UDP. At the Create New UDP screen, give the UDP a number, from **F17** through **F20** or **GOLD F17** through **GOLD F20**.

Create New UDP UDP name: <u>F17</u>
--

Step 3

Enter the following text, including braces, exactly as it appears below, to file and print a document:

```
{GOLD F}P{RETURN}{F13}SYSS$PRINT{TAB}{F13}LN03{RETURN}
```



Do not include spaces between the keystrokes and the text.

Step 4

File the UDP by pressing **GOLD F** (File), the same way you would file any other document.

Invoking Function Key UDPs

When you want to use a function key UDP for a stored routine, press the function key you assigned to that UDP, either **F17**, **F18**, **F19**, **F20** or **GOLD F17**, **GOLD F18**, **GOLD F19**, **GOLD F20**. To invoke the file-and-print UDP assigned in Step 2, press **F17** while you are in the document, and the system files and prints the document.

1.2.2 User-Named UDPs

User-named UDPs work the same way as function key UDPs. The only difference between them is that with user-named UDPs you assign a name and with function key UDPs you assign a number. To invoke the user-named UDP, press either the **DO** key or the **GOLD U** keys and enter the UDP name.

Creating User-Named UDPs

As an example, suppose your supervisor requests a status report every Friday. You can have WPS-PLUS file the status report, print a copy for yourself, and electronically mail a copy to your supervisor.

To do this procedure manually, you enter the following characters after you create your status report:

GOLD F	To file the report
P RETURN RETURN	To print the report with the current print settings
S RETURN	To send the report via VMS mail
NODE::SUPER RETURN	To tell WPS-PLUS your supervisor's electronic mail address

Follow these steps to create the UDP that executes the procedure:

Step 1

Select the User-Defined Process (UD) option from the Word and Document Processing menu, and enter **C** to create a new UDP. The UDP screen displays. We'll give this UDP the name *FRIDAY*. You can enter up to nine characters for a UDP name.

Create New UDP
UDP name: <u>FRIDAY</u>

Step 2

Enter the text exactly as it appears here, except enter the MAIL address of your supervisor instead of NODE::SUPER:

```
{GOLD F}P{RETURN}{RETURN}S{RETURN}NODE::SUPER{RETURN}
```

Step 3

File the UDP by pressing **GOLD F** (File), in the same way you file any other document.

Invoking User-Named UDPs

Here is a sample of a status report sent to my supervisor. You can use this example or create one of your own.

Step 1

Create a new document and call it *Status*. Edit the document to include the following text:

Charlotte Temple

Status Report -- Week Ending August 13, 1988

Tips and Tricks	30 hours
Vacation	8 hours
WPS-PLUS testing	2 hours

Step 2

Press **GOLD U** or the **DO** key. At the UDP Selection Screen, enter the UDP name, **FRIDAY**, and **WPS-PLUS** automatically executes the entire procedure: It files the status report, prints a copy, and mails a copy to your supervisor.

1.2.3 Canceling UDPs

To cancel a UDP, press the **HALT** key (**F6**). Any keystrokes that have not been processed are canceled.

1.2.4 Useful UDPs

Here are some UDPs we use in our department. You can copy them as they are or modify them to meet your own needs.

SAVE saves an unedited version of your document. This procedure is helpful when you are editing a document and making a lot of changes. You realize you don't have a copy of the original document. **SAVE** saves the unedited version of your document.

```
{GOLD TOP DOCMT}{SEL}{GOLD BOT DOCMT}{GOLD CUT}{GOLD K}Y  
{RETURN}C{RETURN}NEW VERSION{RETURN}{GOLD PASTE}Y{RETURN}  
{GOLD TOP DOCMT}
```

MARK1 places the characters *****bookmark***** in your document so that you can return to the same place at another time.

```
{RETURN}***bookmark***{RETURN}{GOLD F}
```

MARK2 removes the characters *****bookmark***** from your document and places the cursor at the last edited area of your document.

```
{GOLD ,}***bookmark***{RETURN}{SEL}{LINE}{CUT}
```

REFORMAT reformats a VMS file to WPS-PLUS with a clean ruler.

```
{ADV}E{RETURN}{GOLD R}{WORD}{SPACE}{WORD}{SPACE}
{WORD}{SPACE}{WORD}{SPACE}{WORD}{SPACE}{WORD}{SPACE}
{WORD}{SPACE}{WORD}{SPACE}{WORD}{SPACE}{LEFT}{LEFT}
{LEFT}{LEFT}{LEFT}R{RETURN}{SEL}{GOLD B}{GOLD PARA}
{GOLD T}
```

PREVIEW allows you to preview a document before you print it.

```
P{RETURN}{RUBWRD}TERMINAL{TAB}{RUBWRD}VT100{GOLD A}FS
{RETURN}F{RETURN}P{RETURN}
```

RESET creates a control block that resets the page number to 1. It also centers the name of your company at the bottom of your document.

```
{GOLD []}reset 1{RETURN}{GOLD []}{GOLD []}BOTTOM{RETURN}
{RETURN}Digital Equipment Corporation - \p{GOLD C}
{RETURN}{GOLD []}
```

DELETE deletes a document and empties your wastebasket.

```
D{RETURN}FC{RETURN}EW{RETURN}Y{RETURN}{ADV}
```

1.3 Abbreviation Documents

The abbreviation document is a catalog of frequently used names and short phrases. Each entry in this document is stored under a two-character abbreviation, enclosed on one side by a pair of left angle brackets and on the other side by a pair of right angle brackets, followed by the abbreviation text and, lastly, a pair of left angle brackets. Figure 1.2 illustrates a sample abbreviation entry.

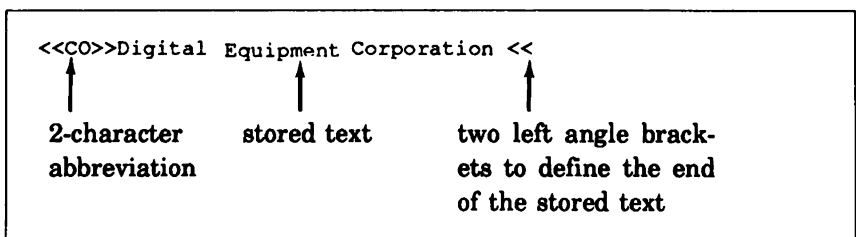


Figure 1.2 Sample Abbreviation Entry

```
<<FE>>Ferrosoferric oxide <<  
<<AG>>Adam Gruverman <<  
<<DV>>DVCC Construction Company  
      1753 Elm Street  
Manchester, NH 03103<<  
<<CO>>Digital Equipment Corporation <<  
<<WP>>WPS-PLUS <<  
<<SI>>Sincerely yours,
```

```
L-----T-----T-----R  
      Charlotte Temple  
      CT/gm  
      <<
```

Figure 1.3 *Screen Display of Abbreviation Document*

You can store lengthy words, words that occur frequently, medical terms, legal terms, or proper names in your abbreviation document. You can also highlight text, create rulers, or, line art diagrams in an abbreviation document. Figure 1.3 illustrates a sample abbreviation document.

1.3.1 ***Creating Abbreviation Documents***

Follow the steps here to create the sample abbreviation document shown in Figure 1.3.

Step 1

Start a new folder and call it *LIBRARY*. Create a new document and call it *Abbreviation*.

Step 2

Enter some of your frequently used phrases or use the ones in this book. Enter the first abbreviation by typing <<FE>>ferrosoferric oxide << and press RETURN.

TIP

Capitalization is important; <<FE>> is not the same as <<Fe>>, <<fE>>, or <<fe>>.

Step 3

Enter the second abbreviation, <<AG>>**Adam Gruverman** <<, on the next line.

Step 4

Enter the third abbreviation, <<DVCC **Construction Company**. Press RETURN and enter **1753 Elm Street**. Press RETURN again and enter **Manchester, NH 03103** <<.

Step 5

Enter the fourth and fifth abbreviations.



You can enter all of your abbreviations on one line, or you can put them on separate lines.

Step 6

Enter the sixth abbreviation by typing <<SI>>**Sincerely yours**, RETURN. Press RETURN a few more times and enter the ruler setting for the closing signature. Enter the ruler settings before you enter the text so that the ruler is embedded between the code and the text. Now, enter the closing signature text:

Charlotte Temple

CT/gm
<<

Step 7

File the abbreviation document.



Make note of the document number, 19, that displays in the upper right corner of the screen, in the reverse video block in Figure 1.4. You can use this number to call up the abbreviation document quickly.

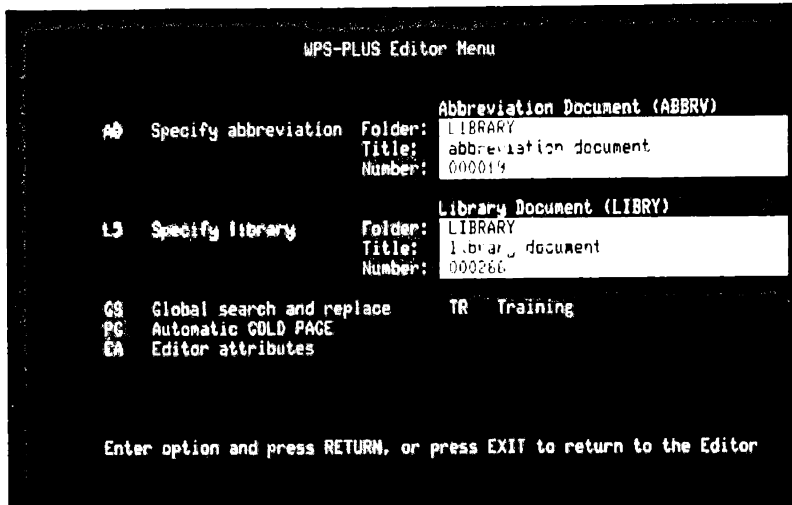


Figure 1.4 WPS-PLUS Editor Menu

1.3.2 Storing Abbreviation Documents

Now that we have created a list of abbreviations, we have to store them and then tell WPS-PLUS how to retrieve them. Follow these steps to store the abbreviation document:

Step 1

Create a new document in the same folder *LIBRARY*, and call it *Abbreviation Test*. Press **GOLD M** (Menu) or the **MAIN SCREEN** key to call up the WPS-PLUS Editor menu. See Figure 1.4 for an illustration of the WPS-PLUS Editor menu.

Step 2

Enter **AD** and press **RETURN** to enter name of the abbreviation document. Enter the folder name *LIBRARY* and the title of the abbreviation document, *Abbreviation*, and press **RETURN**.

The Editor Attributes menu is now updated to reflect the current abbreviation document.



Instead of typing the folder and document title, rub out the current folder name and document name by pressing the **RUB WORD** key (F13). Move the cursor down to the number line, and enter the document number displayed in the upper right corner of the reverse video block. Press **RETURN**.

Step 3

Press **GOLD F** (File) to file the document. You have now created an empty document. We'll use this document in the next section when we recall some of the entries in the abbreviation document.

1.3.3

Recalling Entries from Abbreviation Documents

Once you store abbreviations in the abbreviation document, and once the editor menu settings are updated, you can recall these abbreviations at any time. Follow these steps to recall the abbreviation document entries:

Step 1

Recall *Abbreviation Test*, the document created in the previous section. Press **GOLD =** (Abbrv) and enter **DV**, the two-character abbreviation for DVCC Construction Company.

Step 2

Type the following text into the document:

We are happy to send you the material you requested.
Let us know if we can be of further service.

Step 3

Press **GOLD =** (Abbrv) and enter **SI** to retrieve the signature abbreviation.

Step 4

File and print the document *Abbreviation Test*. It will look like the letter printed below.

DVCC Construction Company
1753 Elm Street
Manchester, NH 03103

We are happy to send you the material you requested.
Let us know if we can be of further service.

Sincerely yours,

Charlotte Temple

CT/gm

1.4 Library Documents

The library document is a catalog of longer phrases or paragraphs. Limit the number of characters you use to identify the elements in your library document. If you make the library entries too long or too short, they will be difficult to remember. We recommend a maximum of 16 characters for each entry. Figure 1.5 illustrates a sample library document entry.

Store long paragraphs, standard clauses in a contract, or announcements of your new product in your library document. The names you give the entries should be easy to remember; for example, use <<800>> for a toll-free-number message, <<MEMO>> for a memo header, or <<CLAUSE1>> for a paragraph in a contract.

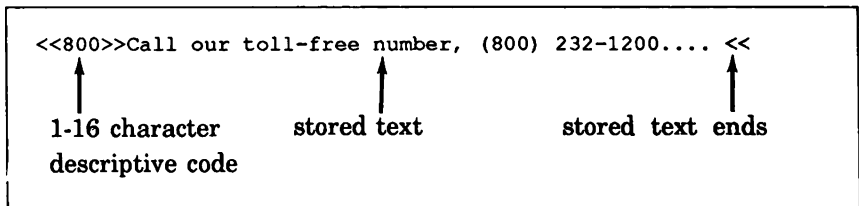


Figure 1.5 Sample Library Entry

1.4.1

Creating Library Documents

Figure 1.6 illustrates a sample library document.

```
<<800>>
Call our toll-free number, (800) 232-1200, from 8:00 AM to 5:00
PM if you have any questions about our new product. Our customer
services agents are waiting to assist you. <<

<<MEMO>>
  I N T E R O F F I C E   M E M O R A N D U M

TO:          >                                DATE:      >
                                           FROM:      >
                                           DEPT:      >
                                           TEL:      >

CC:          >

SUBJECT:     <<

L-----W-----T-----T-----R
<<CLAUSE1>>
- [1] -

      THAT determination of permanent disability, if
any, sustained by claimant as a result of said injury is
reserved for future hearing.<<

<<PHONE>>
TIME:      >
TO:        >
           WHILE YOU WERE OUT

NAME:      >
OF:        >
PHONE:     >
-----

TELEPHONED      >   PLEASE CALL      >
CALLED TO SEE YOU >   WILL CALL AGAIN >
WANTS TO SEE YOU >   URGENT          >
RETURNED YOUR CALL >
-----
MESSAGE         >
                               OPERATOR >

<<
```

Figure 1.6 Sample Library Document

Follow these steps to create the sample library document shown in Figure 1.6:

Step 1

Create a new document in the *LIBRARY* folder and call it *Library Abbreviations*.

Step 2

Edit *Library Abbreviations* and enter <<800>> enclosed in double angle brackets. Enter the ruler settings for the library entry, and enter the paragraph text shown below. Don't forget to end the library document with double angle brackets (<<).

```
<<800>>
Call our toll-free number, (800) 232-1200, from 8:00 AM to 5:00
PM if you have any questions about our new product. Our customer
services agents are waiting to assist you. <<
```

Step 3

File the library document.

1.4.2 Storing Library Documents

Store the library document the same way you stored the abbreviation document. See Steps 1–3 in the Storing Abbreviation Documents section. However, when you press **GOLD M** or the **MAIN SCREEN** key at the editor menu, specify **LD** and press **RETURN** to enter the name of the library document. Enter the folder name *LIBRARY* and the title of the library document, *Library Abbreviations*, and press **RETURN**.

1.4.3 Recalling Entries From Library Documents

To call up a word or phrase, press **GOLD L** (Libry) when you're in a document. Enter the name of the phrase you stored without the angle brackets. For instance, to call up the 800-number text, press **GOLD L**. At the **LIBRY** prompt, enter **800**. The entire paragraph, complete with rulers, displays in your document.



Remember that if you typed the name of the library entry in all-uppercase letters, use uppercase letters to call it up. If you change your mind and decide not to call up a library entry, rub out all the characters and press RETURN.

Print out your abbreviation and library documents periodically and hang the printouts next to your terminal. You may want to create a form similar to the one in Figure 1.7 to keep track of your entries. Before you know it, you'll be constructing entire letters based on your abbreviation and library documents.

Abbreviation Elements	
FOLDER: LIBRARY	_____
Title: Abbreviation	_____
Number:	_____
Abbreviation Entries	Description
<<FE>>	Ferrosoferric oxide
<<AG>>	Adam Gruverman
<<DV>>	DVCC Construction Company
<<CO>>	Digital Equipment Corporation
<<WP>>	WPS-PLUS
<<SI>>	Closing signature
<< >>	_____
<< >>	_____
<< >>	_____
Library Entries	
FOLDER: LIBRARY	_____
Title: Library	_____
Number:	_____
Library Element	Description
<<800>>	800 toll-free-number message
<<CLAUSE1>>	Clause 1 for Compensation Case
<<MEMO>>	Interoffice memo
<<PHONE>>	Telephone message pad
<< >>	_____
<< >>	_____
<< >>	_____
<< >>	_____
<< >>	_____

Figure 1.7 Abbreviation and Library Document Entries

Table 1.3 Keys Used to Create UDPs

Key(s)	UDP Code	Key(s)	UDP Code
Advance	{ADV}	Gold Rub Line	{RUBLIN}
Alt Char	{F11}	Gold Rub Sent	{RUBSENT}
Back Up	{BACKUP}	Gold Ruler	{GOLD R}
Bold	{BOLD}	Gold Srch	{GOLD .}
Cut	{CUT}	Gold Sub Script	{GOLD A}
Del Char	{DELCHR}	Gold Super Script	{GOLD Q}
Del Word	{DELWRD}	Gold Swap	{GOLD <>}
Do	{DO}	Gold Top Docmnt	{GOLD T}
Down Arrow	{DOWN}	Gold View	{GOLD V}
Enter	{ENTER}	Hyph Push	{F12}
Erase Line	{F13}	Left Arrow	{LEFT}
Exit	{F10}	Line	{LINE}
Exit Screen	{ADV}	Linefeed	{F13}
Find	{PC FIND}	Main Screen	{PC MAIN SCREEN}
Gold Abbrv	{GOLD =}	Next Screen	{PC NEXT SCREEN}
Gold Bot Docmt	{GOLD B}	Page	{PAGE}
Gold Centr	{GOLD C}	Para	{PARA}
Gold Cmnd	{GOLD [}	Paste	{PASTE}
Gold Cont Srch	{GOLD .}	Prev Field	{F12}
Gold Cont Srch			
& Sel	{GOLD /}	Return	{RETURN}
Gold Get Docmt	{GOLD G}	Right Arrow	{RIGHT}
Gold Date & Time	{GOLD \}	Rub Char Out	{RUBCHR}
Gold Dead Key	{GOLD D}	Rub Word	{F13}
Gold File Docmnt	{GOLD F}	Sel	{SEL}
Gold Global Replc	{GOLD ;}	Sent	{SENT}
Gold Hyph Pull	{GOLD F12}	Space	{SPACE}
Gold Libry	{GOLD L}	Tab	{TAB}
Gold Menu	{GOLD M}	Tab Pos	{TABPOS}
Gold New Page	{GOLD N}	Under Line	{UNDER}
Gold Page Marker	{GOLD RETURN}	Up Arrow	{UP}
Gold Para Marker	{PARMRK}	Upper Case	{UPPER}
Gold Print Hyph	{GOLD -}	Word	{WORD}

Chapter 2

Maintaining Your File Cabinet

Your WPS-PLUS file cabinet holds all the documents you create. It's organized the same way as the file cabinet in your office: You create folders in your office file cabinet, and within each folder, you place documents that may be sorted either alphabetically, numerically, or in some other logical way. In your WPS-PLUS file cabinet, each document is also stored within a folder, and each document within the folder has a title and a document number. When you create a document in WPS-PLUS, you assign the folder and the document name, and WPS-PLUS assigns the document number.

2.1 *Navigating Through the File Cabinet*

Your WPS-PLUS folders are arranged alphabetically in your file cabinet. Press **GOLD ↑** to view the first folder.



Place the documents you use most often in a folder beginning with the letter A, maybe one called *AN IMPORTANT FOLDER*. Now, whenever you want to access documents in that folder, simply press **GOLD ↑** and *AN IMPORTANT FOLDER* becomes your current folder. Press **↑** to view the first document in that folder.

The more organized your file cabinet is, the easier it is to find a specific document. Give your documents easy-to-remember titles to help you locate them at a later date.

To view the options for maintaining your file cabinet, select the File Cabinet (FC) option from the Word and Document Processing menu. At the FC menu, you can do the following:

- Print an index of all your documents, or print selected documents.
- Move a document from one folder to another.
- Cross-file a document.
- Make a copy of a document, put it into another folder, and edit it, without altering the original document.

2.2 ***Using Indexes***

The Index is one of the newer features of WPS-PLUS. It's a list of documents in your WPS-PLUS file cabinet: from one folder, from different folders, or from any combination of folders. Each line in the index describes a document, listing the folder name, the title, the number, and the date the document was modified. From here, you can perform a function on a selected subset of the documents in a folder, such as print, delete, or refile.

2.2.1 ***Working from an Index***

You can work on several documents from different folders without returning to the Word and Document Processing menu. You can create an index and store all the documents you plan to work on in one session in this index.

It's important to organize your documents when you first create them and use meaningful keywords to describe them. The date you created the document or the subject of the document may be good keywords.

For example, when I was writing this book, I put all the text for the chapters in one folder, the illustrations in another folder, the examples in another folder, and the figure captions in another. I used the chapter number as my keyword. I was then able to create an index by using the keyword to build an index of all the documents I needed for each chapter. Using the keyword 4, for example, I could build an index that contained all the documents I needed for Chapter 4.

2.2.2 *Building an Index*

To build an index, you complete a form and select the documents to include in this index. While you are in the index, you can edit, delete, and file documents.

Figure 2.1 illustrates the Index of Documents screen, and Figure 2.2 illustrates the same screen once again showing that all the documents were selected.

No.	Folder	Title	Modified
> 1	FIGURES	Figure 4.1	28-Aug-1989
2	ILLUSTRATIONS	Exercises	28-Aug-1989
3	ILLUSTRATIONS	Screen Design	28-Aug-1989
4	LIST PROCESSING	Spec - Fiction	28-Aug-1989
5	LIST PROCESSING	List - Fiction	28-Aug-1989
6	LIST PROCESSING	Form - Fiction	28-Aug-1989

Move to item, and enter option (press GOLD MENU to see options, or HELP for more information)

Figure 2.1 *Document Index Screen Listing Selected Documents*

Index of Documents			
(Selections: 6)			
No.	Folder	Title	Modified
*1	FIGURES	Figure 4.1	28-Aug-1989
*2	ILLUSTRATIONS	Exercises	28-Aug-1989
*3	ILLUSTRATIONS	Screen Design	28-Aug-1989
*4	LIST PROCESSING	Spec - Fiction	28-Aug-1989
*5	LIST PROCESSING	List - Fiction	28-Aug-1989
*6	LIST PROCESSING	Form - Fiction	28-Aug-1989
Move to item, and enter option (press GOLD MENU to see options, or HELP for more information)			

Figure 2.2 Document Index Screen with Documents Marked

Follow these steps to select the documents for an index:

Step 1

Select **I** from the Word and Document Processing menu, and complete the form at the bottom of the screen. Enter a word or number to identify the documents you are going to place in your index and press **RETURN**. For this example, we entered the information into the keyword field to build an index of all the documents relating to Chapter 4.

Step 2

When you press **RETURN**, a new screen displays, listing all the documents from different folders having 4 as a keyword.

Step 3

Enter **ALL** to mark the displayed documents. All the documents displayed are selected and marked with an **x**.

Now you can work on any or all the documents.

2.2.3

Working on a Single Document

To work on a single document, press the UP or DOWN ARROW key to move the cursor and select the document to work on. Enter **E** to edit the document or **D** to delete it, or select any other option on the Index menu. When you work from an index, you return to the index — not to the Word and Document Processing menu — when you finish with your document.

2.2.4

Working on Multiple Documents

To work on multiple documents, press **GOLD M** (Menu) or the **MAIN SCREEN** key to view your options. Select an option from the Index menu. Figure 2.3 illustrates the Index menu you use when you work on multiple documents.

You can leave the index to work on another document. When you want to return to that index, select the Return to Index (**RI**) option from the Word and Document Processing menu.

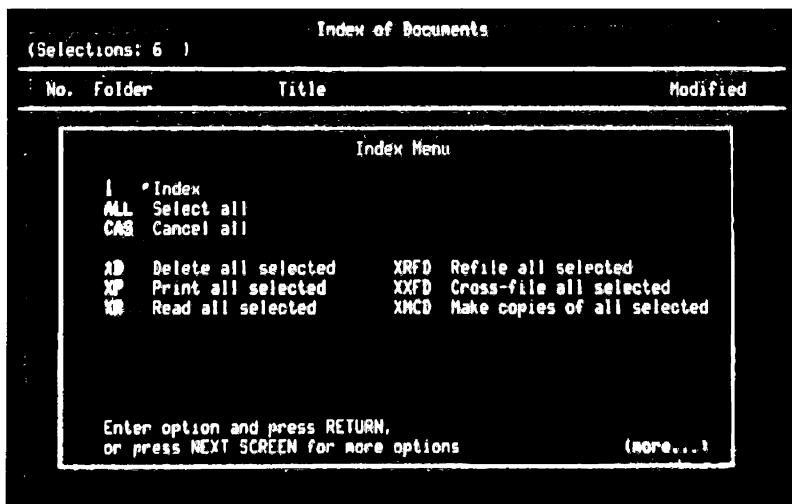


Figure 2.3 Index Menu

Chapter 3

Printing and Formatting Your Documents

With the options available in WPS-PLUS, you can format and print your documents to give them a customized look. Printing a document can be as simple as selecting **P** from the print menu or as complex as selecting several options to customize the format of your document. When you customize the format, you can adjust the page layout, the number of lines printed on each page, and the size of the top and bottom margins.

3.1 *Printing Options*

The Printing Document menu lets you control the document destination, the format, and the number of copies to be printed. We'll show you two print screens here and briefly describe some of the options on the screens. See your WPS-PLUS documentation for more details.

Select **P** from the Word and Document Processing menu to display the Printing Document screen, shown in Figure 3.1.

Mon 04-Sep-1989

digital WPS-PLUS/VMS V3.0
Word and Document Processing Menu

SEL Select	Folder: FIGURES
C Create	Title: Figure 4.1
E Edit	Date: Modified on: 04-Sep-1989 10:57
D Delete	Number: 000302
P Print	
R Read	

FC File cabinet

Printing Document

Document destination: PRINTER

Format style: LN03

Number of copies: 1

Enter information and press RETURN
or NEXT SCREEN to change settings

(more...)

Figure 3.1 *Printing Document Screen*

We'll describe three document destinations here, **FILE**, **DOCUMENT**, and **PORT**. See your WPS-PLUS documentation for other destinations to enter here.

3.1.1 **FILE**

FILE copies a document to a VMS file. This VMS file will contain the formatting information such as bold or underline. Use this option when you want to send a file to a customer who has a VAX but doesn't have WPS-PLUS installed. You can electronically mail this file to your customer, and your customer can print it, keeping all the attributes intact.

To copy a document to a VMS file, fill in the form below. Enter the name of your customer's printer, such as LN03 or LA50, in the Format Style field.

Document destination: FILE
Format Style:
Number of copies: 1

Press **RETURN** and the following form displays:

Send a Document to VMS VMS File Name: _____
--

Enter a VMS file name. For example, **[SYSTEM]FILENAME.EXT**.

Do **NOT** use a .WPL extension for the VMS file name because a .WPL extension tells WPS-PLUS to format the document in a different way.

To print this document, your customer enters the following DCL command:

```
$ PRINT [SYSTEM]FILENAME.EXT/FORM=WPSPLUS
```

3.1.2

DOCUMENT

DOCUMENT places the selected documents into a new document that is formatted for screen viewing. Use the DOCUMENT option to check the placement of footnotes, headers, footers, or the format of documents with multiple columns before printing.

Fill in the form below.

Document destination: DOCUMENT _____ Format Style: VT100 _____ Number of copies: _____
--

Press **RETURN** and the Creating New Document form displays:

Creating New Document VMS File Name: _____

Enter a new name for the document. The new document displays in the upper right corner of your screen, the current document block.

Select the **R** (Read) option at the Word and Document Processing menu to view the document. Your document displays on the screen formatted for printing.

3.1.3 ***PORT***

PORT sends a document to the printer attached to your terminal printer port. Enter **PORT** in the Document Destination field. Enter your printer type (for example, **LA50**, **LQP02**, **LN03**) in the Format Style field, and press **RETURN**.

Document destination: **PORT** _____
Format Style: _____
Number of copies: _____

3.1.4 ***Number of Copies***

You can enter any number from 1 to 255. WPS-PLUS resets the number of copies to 1 each time you display the Printing Document form.

3.1.5 ***Change Print Settings***

The Print Settings menu, illustrated in Figure 3.2, allows you to give WPS-PLUS additional information to print your document. You can change the page layout, the spacing between each column, the number of spaces in the top and bottom margins, and the number of lines per page, as well as other information about your document. We'll describe some of the options here. See your WPS-PLUS documentation for more details.

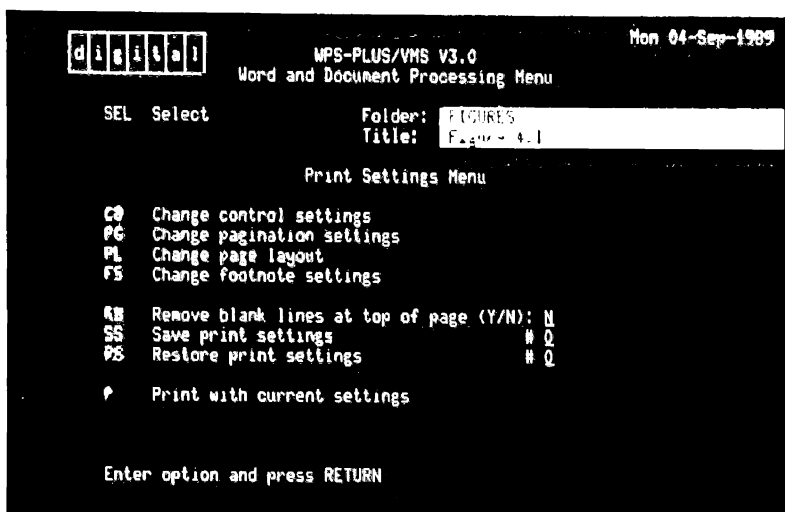


Figure 3.2 *Print Settings Menu*

3.1.6 Remove Blank Lines (RB)

You can remove the number of blank lines at the top of the page. For example, when a paragraph ends on the last line of a page, the blank line after the paragraph prints at the top of the next page. See Figure 3.3. You can control whether or not this blank line prints by entering **Y** or **N** at the Remove Blank Lines (RB) option.

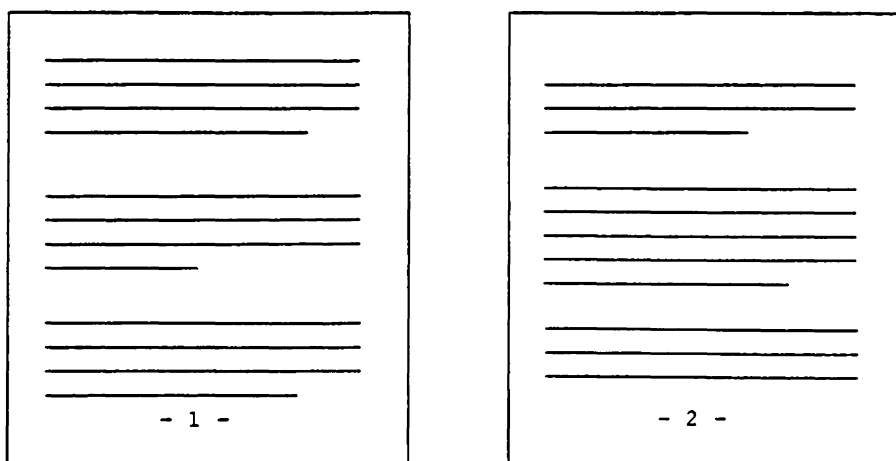


Figure 3.3 *Remove Blank Lines*



WPS-PLUS/VMS V3.0
Word and Document Processing Menu

Mon 04-Sep-1989

SEL Select

Folder: FIGURES
Title: Figure 4.1

Print Settings Menu

WPS-PLUS Pagation Settings

Number on the first page: 1	Auto paginate (Y/N): 1
First page printed: 1	Lines in the top margin: 6
Last page printed: 0	Lines in the bottom margin: 6
Total lines per page: 66	Spaces between columns: 0
Print quality: DRAFT	Spaces in left print margin: 0
Vertical lines per inch: 6	Replacement character 1: -
Characters per inch (pitch): 10	Replacement character 2: -
Extra half-lines between lines: 0	Print darkness: NORMAL
Sheet feeder tray: NOIRAY	Shadow print (Y/N): 1
	Widow/orphan control lines: 6

Enter new settings and press RETURN

Figure 3.4 WPS-PLUS Pagation Settings

3.1.7 **Change Pagation Settings (PG)**

When you select the PG option from the Print Settings menu, you can change any of the values shown in Figure 3.4.

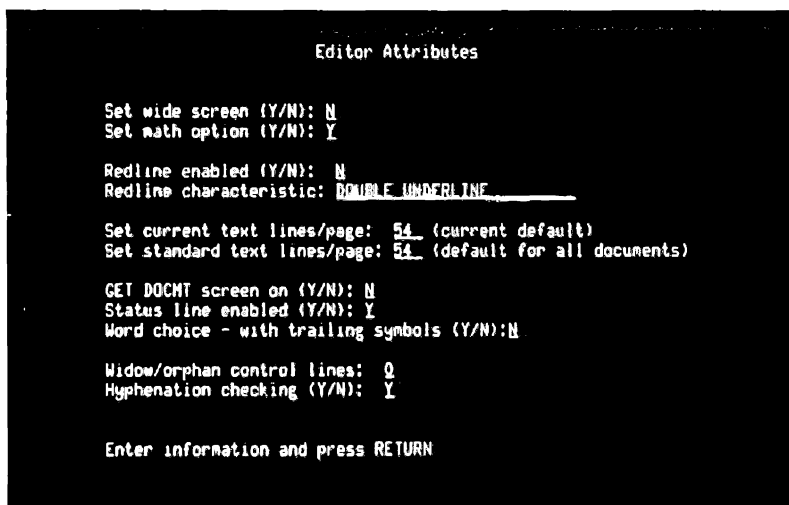
3.2 **Formatting Options**

You can control some of the formatting options in WPS-PLUS through the Editor Attributes form. By selecting specific options from this form, you can display the status line, adjust the widow and

orphan control lines, choose between insert and overstrike mode, or change the page layout. See Figure 3.5 for an illustration of the Editor Attributes form.

To access the Editor Attributes form, press **GOLD M** or the **MAIN SCREEN** key while you are editing a document. Enter **EA** and the system displays the Editor Attributes form. To select or change the attributes of a document, you simply select the attributes you want.

Some of the options are described here. See the WPS-PLUS documentation set for explanations of the other options.



```

                                     Editor Attributes

Set wide screen (Y/N): N
Set math option (Y/N): Y

Redline enabled (Y/N): N
Redline characteristic: DOUBLE UNDERLINE

Set current text lines/page: 54 (current default)
Set standard text lines/page: 54 (default for all documents)

GET DOCHT screen on (Y/N): N
Status line enabled (Y/N): Y
Word choice - with trailing symbols (Y/N): N

Widow/orphan control lines: 0
Hyphenation checking (Y/N): Y

Enter information and press RETURN

```

Figure 3.5 *Editor Attributes Form*

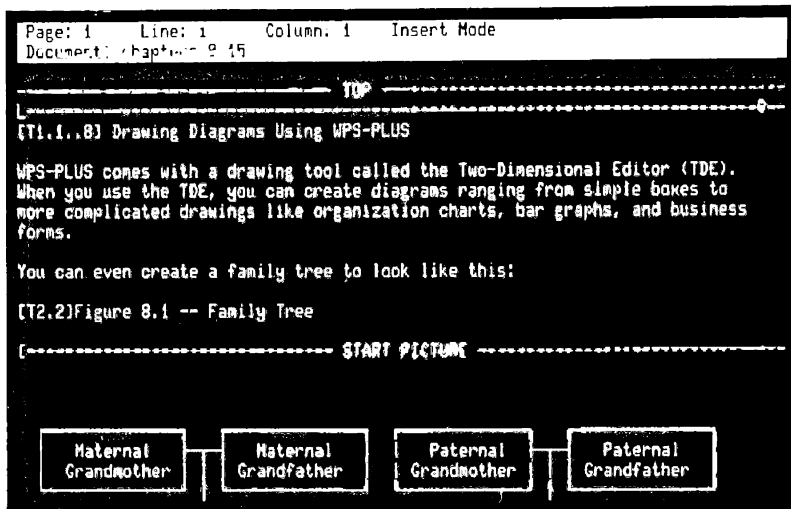


Figure 3.6 Status Line

3.2.1 Status Line

The status line gives you information about your document. Use the status line to check the page and line number, the document title, and whether you are in insert or overstrike mode. See Figure 3.6. You have the option of either displaying the status line continuously, or displaying it only when you want to see the document status. Press **GOLD Z** (Status), to turn the status line on and off.

3.2.2 Widow and Orphan Control Lines

A widow line is the first sentence of a paragraph printed by itself on the bottom of a page. An orphan line is the last line of a paragraph printed by itself at the top of a page. See Figure 3.7. WPS-PLUS prevents widow and orphan lines by allowing you to control the number of lines considered to be widow and orphan lines. To use this feature, enter the number of lines you consider as widow and orphan lines. For example, if you enter **2**, WPS-PLUS will not strand one or two lines at the bottom or the top of a page. A paragraph of five lines or less, therefore, will not be split across two pages.

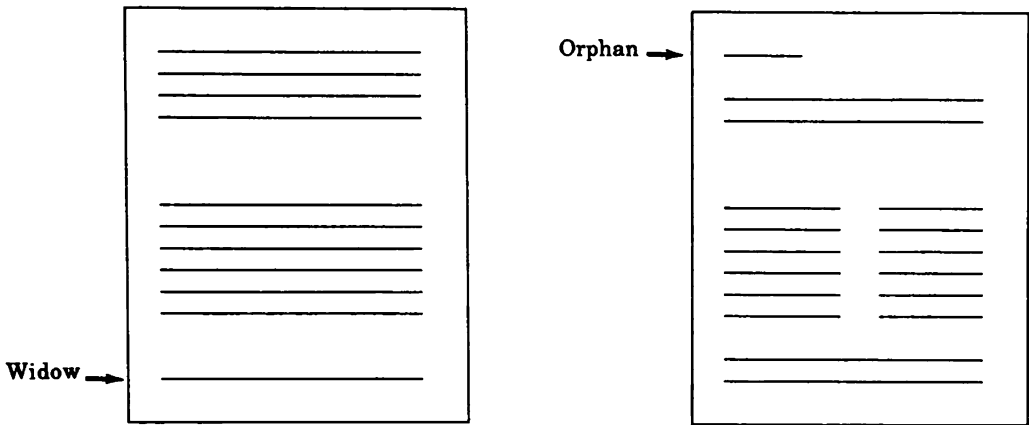


Figure 3.7 Widow and Orphan Lines

3.3 Using Control Blocks

A control block is a nonprinting block of text that tells WPS-PLUS to print some of your text in a specific way. The text continues to print this way until WPS-PLUS meets another control block. Only the text within the control block prints; the control block itself doesn't print, although it does display on your screen:

```
----- START CONTROL -----
TEXT
----- END CONTROL -----
```

When you use control blocks, you can customize and add special print characteristics to your document, such as the following:

- Print the date on each page.
- Use alphabetic characters to number your pages.
- Print the words COMPANY CONFIDENTIAL on each page.
- Print your document in multiple columns.
- Print your document in landscape mode on an LN03 printer.

- Write a comment that displays on the screen but doesn't print in your document.
- Prevent a critical portion of your text from breaking at the wrong time.
- Reset your page numbers.
- Select optional fonts.

3.3.1 *Control Block Command Codes*

Table 3.1 is a complete list of control block command codes. Experiment with these codes; they'll help you customize your document.

If the first line in the control block does not contain one of the codes listed here, WPS-PLUS will not execute the correct command.

Table 3.1 *Codes for Control Block Commands*

Code	Function
<code>\a</code>	Print page letters rather than numbers (When you use <code>\a</code> , WPS-PLUS begins printing page letters on the second page of your document.)
<code>\d</code>	Print the current date
<code>\n</code>	Print page numbers according to NEW PAGE marks
<code>\p</code>	Print page numbers
<code>\s</code>	Print section numbers
<code>BOTTOM</code>	Print a footer on the bottom of every page
<code>COMMENT</code>	Use the text as a comment (Comment text doesn't print, but it can be seen on the screen.)
<code>END__NO__BREAK</code>	Indicate the end of a block of text that should not be broken by a page break

Table 3.1 Codes for Control Block Commands (Continued)

Code	Function
FOOTNOTE	Specify the number for the next footnote
MULTI	Print text in multiple columns
NO_BREAK	Indicate the start of a block of text that should not be broken by a page break
PRINTER FONT	Load a different font
PRINTER FOOTNOTE_FONT	Load a different font for the next and the following footnotes
PRINTER FORMAT	Change the format to portrait (vertical printing) or landscape (horizontal printing). (This code can only be used with the LN03 printer.)
PRINTER MODE	Change the printer mode to draft or letter quality
PRINTER SELECT	Change the sheet feeder tray while printing
PRINTER TABLE	Invoke a user-defined keyword from the printer attribute table
RESET	Reset page numbers
SECTION	Increment the section number
TOP	Print a header on the top of every page
WPSMATH	Perform math calculations on specific numbers

3.3.2 Printing Headers and Footers

A header prints at the top of your document. It can be the document title, the date, your company logo, or any other text. A footer prints at the bottom of your document. It can be a section, a chapter, a page number, or any other text. Text in headers or footers can be highlighted in the same way as other text in your document.

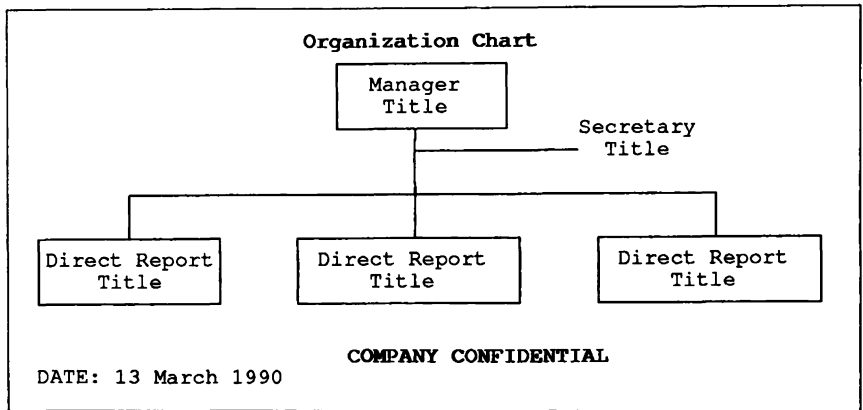


Figure 3.8 *Organization Chart*

Follow these steps to create the headers and footers for the organization chart illustrated in Figure 3.8.

Step 1

Position your cursor at the top of the page. Press **GOLD I** (Cmnd) to begin the header control block.

Step 2

Enter the command **TOP** and press **RETURN** to indicate that the text that follows should be printed at the top of your document.



You can enter control block commands in uppercase or lowercase letters.

Step 3

Enter and bold the text **Organization Chart**. Press **RETURN** twice to make sure you have enough space below the header to prevent it from crowding the text. Press **GOLD I** (Cmnd) again to end the header control block.

```

----- START CONTROL -----
TOP
Organization Chart

----- END CONTROL -----
----- START CONTROL -----
BOTTOM

                                     COMPANY CONFIDENTIAL
DATE: \d
----- END CONTROL -----

```

Figure 3.9 Control Block Text for Organization Chart

Step 4

Press **GOLD [(Cmnd)** to begin the footer control block. Enter the command **BOTTOM** and press **RETURN** to indicate that the text that follows is footer text and should print at the bottom of your document. Press **RETURN** again to make sure you have enough space above the footer text to prevent it from crowding the last line of the text.

Step 5

Enter and bold the text **COMPANY CONFIDENTIAL**. Press **GOLD C** (Center) to center the text, and press **RETURN**. Enter **DATE: \d** and press **RETURN** to enter the current date in your document. Press **GOLD [(Cmnd)** to end the footer control block.

3.3.3

Page Numbering

Figure 3.10 illustrates the way to use a control block to renumber pages. Suppose you're working on a lengthy, double-spaced report that needs the company name and a page number on every page. However, there's a cover or title sheet for the report that should not be numbered. You want the second page of the document to be numbered as page 1, the third page as page 2, and so on.

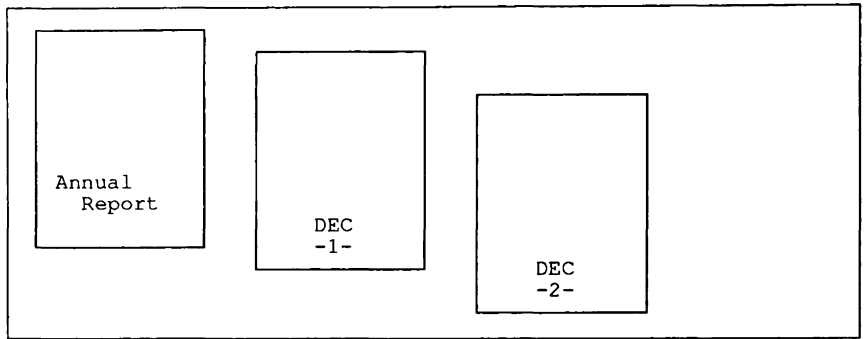


Figure 3.10 Page Numbering

First, type the cover sheet, then press **GOLD N** to insert a new page. Next, copy the control block here and place it at the top of the second page of your document.

```

----- START CONTROL -----
RESET 1
----- END CONTROL -----
----- START CONTROL -----
BOTTOM
-----

                        Digital Equipment Corporation
                        -\p-
----- END CONTROL -----

```

The control block will reset the page number to 1 and enter a footer with the company name and page number.

If you want to stop the page numbering for any reason, you can enter a blank control block. For example, if you don't want to print a number on an illustration page, copy this control block at the top of the illustration page:

```

----- START CONTROL -----
BOTTOM
----- END CONTROL -----

```

To resume page numbering at the top of the next page, use the command **RESET** and the appropriate page number. Use the same **RESET** command to advance the page number by one when you know you'll be inserting a table or chart at some later time.

3.3.4

Keeping Diagrams and Tables Intact

There may be times when you have a particular piece of text that should not be broken across pages, such as a diagram or a table. The `NO__BREAK` control block tells WPS-PLUS that the text between the `NO__BREAK` and the `END__NO__BREAK` blocks should be kept together.



Don't put a `NEW PAGE` marker in the middle of these control blocks. If WPS-PLUS finds a `NEW PAGE` marker, the page is broken at the `NEW PAGE` marker, and the remaining text continues unbroken on the next page.

Follow these steps to mark a block of text to be unbroken:

Step 1

Press `GOLD [ (Cmnd)` at the beginning of the text you want to keep together. Enter `NO__BREAK` and press `RETURN`. Press `GOLD [ (Cmnd)` to end the control block.

Step 2

Enter the block of text to be unbroken.

Step 3

Press `GOLD [ (Cmnd)` again to begin the second control block. Enter `END__NO__BREAK`, press `RETURN`, and then press `GOLD [ (Cmnd)` to end the second control block.

Here's an example of the `NO__BREAK` and `END__NO__BREAK` control blocks as they appear on the screen:

```
----- START CONTROL -----
NO__BREAK
----- END   CONTROL -----
Enter the table or text to keep on one page.
----- START CONTROL -----
END__NO__BREAK
----- END   CONTROL -----
```



Make sure that the number of lines for the text in the `NO_BREAK` control block does not exceed the number of lines per page.

When the document is printed, the block of text between the control blocks prints on one page.

Chapter 4

Using DECpage — Office Publishing with Style

DECpage is a software product that formats WPS-PLUS documents according to different styles. You type the text by using specific keying conventions, and DECpage formats the document for you. It automatically positions text on the page, hyphenates words, paginates documents, and changes typefaces and character sizes.

DECpage filters your text through one of 41 templates (or style sheets) to define the look of your printed document. These style sheets were designed by a team of typographers and graphic designers to ensure that all the document types have an attractive, professional, typeset appearance.

DECpage supports and formats such document types as reports, newsletters, transparencies, letters, memos, announcements, and directories. In addition, you can modify the DECpage styles and create your own styles to accommodate your needs.

DECpage formats your text by reading the tab stops in your rulers, counting your carriage returns, and interpreting specific characters such as bold or underline. These keying conventions will determine the output of the final document.

DECpage recognizes four header levels. Each header level prints in a different text size. There are two ways to indicate header levels:

1. Press **RETURN** three times to tell DECpage that the text that follows is header text. Then, use the appropriate emphasis (bold, underline, both, or normal text) to indicate the level of header you want.
2. Use markup characters to designate a header level. For example, [T1.1] denotes a first-level header; [T1.2], a second-level header; [T1.3], a third-level header; and [T1.4], a fourth-level header. When you use these markup characters, you do not have to use three carriage returns.

You can also use the markup characters to build a table of contents, an index, or a table of authorities. (See Chapter 13, "Putting It All Together," for more information on building a table of authorities.)



Because the left square bracket is used to denote headings, it does not normally print in your text. If you want to print a left square bracket in your text, you must precede it with an underscore, "[".

Table 4.1 illustrates the keying conventions for headers. Start each header level with only left and right margin characters in the ruler.

Table 4.1 Header Levels

Header Level	Keying Convention	Markup
First-level header	Press RETURN three times. Bold and underline the header.	[T1.1]
Second-level header	Press RETURN three times. Bold the header.	[T1.2]
Third-level header	Press RETURN three times. Underline the header.	[T1.3]
Fourth-level header	Press RETURN three times. Use normal text.	[T1.4]

Storing Header Levels in a Library Document

You can store the header levels in your library document or your abbreviation document in order to retrieve them quickly. See Chapter 1 for more information about abbreviation and library documents.

To add the DECpage markup characters designating header levels to your library document, follow these steps:

Step 1

Edit your library document and press **GOLD B** (Bot Docmt) to get to the bottom of your library document.

Step 2

Enter <<**HEAD1**>> for a first-level header and press **RETURN**. Enter |T1.1|<<**HEAD2**>>. Any carriage returns or spaces inserted after |T1.1| and before <<**HEAD2**>> will be inserted into the document with the text. For this reason, enter the text |T1.1| and <<**HEAD2**>> on

the same line. Continue to do the same for header 3 and header 4. The format is shown below.

```
<<HEAD1>>  
[T1.1]<<HEAD2>>  
[T1.2]<<HEAD3>>  
[T1.3]<<HEAD4>>  
[T1.4]<<
```

4.2 *Creating DECpage Rulers*

Rulers are guides in your document for defining its format, namely through margins and tab stops. DECpage formats your document by reading the tab stops in your rulers and counting your carriage returns. Each time you change your ruler, you signal a format change.

It's very important to keep your rulers clean when you use DECpage; do not include any extra tab settings in your ruler settings. When you finish a particular section or paragraph, delete all unnecessary tab settings, word wraps, or other settings. For example, if you create a ruler with two tab settings for a list, make sure that you clear the ruler before you begin the next section of text. An easy way to keep clean rulers is to store the rulers you use most often in your abbreviation or library documents, as explained in Chapter 1. The next section describes how to store DECpage rulers in library documents.

Storing DECpage Rulers in a Library Document

To add DECpage rulers to your library document, follow these steps:

Step 1

Edit your library document, and press **GOLD B** (Bot Docmt) to get to the bottom of your library document. Enter **<<CLEAR>>** to create a ruler without tab stops or word wraps. Press **RETURN**.

Step 2

Press **GOLD R** (Ruler) to call up a ruler. Set the left margin at 1 and the right margin at 78. Press **RETURN** to embed the ruler. End the ruler with a pair of left angle brackets (**<<**).

Step 3

Enter <<INDENTED>> for an indented list and press RETURN. Press GOLD R (Ruler) to call up another ruler. Set the left margin at 1, a tab at 5, a wrap at 9, and the right margin at 78. Press RETURN to embed the ruler.

Continue to add rulers as illustrated in Figure 4.1. Remember to end each ruler with a pair of left angle brackets (<<).

Whenever you want to add a specific ruler to your document, just press GOLD L (Library) to call up your library document. At the prompt, enter the ruler name to call up the correct ruler.

```
<<CLEAR>>
L-----R
<<
<<INDENTED>>
L--T--W-----R
<<
<<FLUSHLEFT>>
L---W-----R
<<
<<LIST>>
L--T--W-----R
<<
<<SUBLIST>>
L-----T--W-----R
<<
```

Figure 4.1 Library Document for DECpage Rulers

4.3 Creating DECpage Multicolumn Documents

If you set the rulers in your document properly, DECpage will automatically wrap the columns of your document and reformat them into multicolumn documents. When you enter the columns of text on the screen, they will not appear to wrap. However, when you print the document, the text will reformat into columns. See Figures 4.2 and 4.3 for a screen display and printed output of DECpage documents.

To divide the page into columns, define a ruler, similar to the one below. The number of spaces you leave between the second and third

tab stops is the number of spaces DECpage leaves between columns, or the "blank column."

L---T-----T--T-----T--T-----R

Keep these points in mind when you use DECpage to create multicolumn documents:

- When you type the text for a wrapped column, do not press **TAB** until you finish typing all text for that column.
- After you type the text for one column, press **TAB** twice to advance to the beginning of the next column. Your text may not appear to be starting at the correct tab stop on your ruler. However, each tab you press tells DECpage to advance to the next column in your ruler. (The first **TAB** tells DECpage to advance to the beginning of the "blank column." The second **TAB** tells DECpage to advance to the next "text" column.) Enter each column of text in this way.
- Do not press **RETURN** until you have entered the last column of text for a row in the table.

Entering Text for a DECpage Multicolumn Document

Enter the text as shown in Figure 4.2. Remember to press **TAB** twice to begin a new column, and press **RETURN** twice to begin a new section of text to begin in column 1.

L---T-----T--T-----T--T-----R
Problem Cause Solution
The output document contains a narrow column of text down the page. Either the ruler contains tabs that you are not using, or you have spaced over to a tab stop instead of using the TAB key. Remove any extra tabs from your ruler. Then, press GOLD VIEW to determine if you used the space bar rather than the TAB key to move to a tab stop. Delete the spaces and press the TAB key. Also, count the number of tab stops. DECpage expects one tab character for each tab in the ruler. Text from one or more columns is moving down to the next line in the column. DECpage wraps column text. If you type a document and try to line up text columns on the screen, you may see this problem. Move the text around so that each column contains fewer words.

Figure 4.2 Troubleshooting Document Screen Display

Figure 4.3 shows the Troubleshooting document after you print it.

Problem	Cause	Solution
The output document contains a narrow column of text down the page.	Either the ruler contains tabs that you are not using, or you have spaced over to a tab stop instead of using the TAB key.	Remove any extra tabs from your ruler. Then, press GOLD VIEW to determine if you used the space bar rather than the TAB key to move to a tab stop. Delete the spaces and press the TAB key. Also, count the number of tab stops. DECpage expects one tab character for each tab in the ruler.
Text from one or more columns is moving down to the next line in the column.	DECpage wraps column text. If you type a document and try to line up text columns on the screen, you may see this problem.	Move the text around so that each column contains fewer words.

Figure 4.3 *Troubleshooting Output Document*

4.4

Creating a DECpage UDP

You can create a DECpage UDP that will automatically enter the tabs for you when it is executed. Use the same text you used in Figure 4.2. However, this time enter the text as shown in Figure 4.4. Enter an asterisk (*) at each new column, and press RETURN to begin a new section of text.

Problem	Cause	Solution
L---T-----T--T-----T--T-----R		
The output document contains a narrow column of text down the page.		
*		
Either the ruler contains tabs that you are not using, or you have spaced over to a tab stop instead of using the TAB key.		
*		
Remove any extra tabs from your ruler. Then, press GOLD VIEW to determine if you used the space bar rather than the TAB key to move to a tab stop. Delete the spaces and press the TAB key. Also, count the number of tab stops. DECpage expects one tab character for each tab in the ruler.		
Text from one or more columns is moving down to the next line in the column.		
*		
DECpage wraps column text. If you type a document and try to line up text columns on the screen, you may see this problem.		
*		
Move the text around so that each column contains fewer words.		

Figure 4.4 Screen Display of Document Before UDP Modification

Creating a UDP to Print the DECpage Multicolumn Document

You can create a UDP that will automatically remove the asterisks (*) and replace them with the correct number of tab stops. (Refer to Chapter 1 for more information on UDPs.) Figure 4.5 shows the finished document, which is a troubleshooting guide.

Follow these steps to create the UDP to print the document:

Step 1

Enter the following text to create the UDP that we call *WRAPTABLE*:

```
{GOLD F}MCD{RETURN}WASTEBASKET{DOWN}COLUMN FORMAT
{RETURN}E{RETURN}{GOLD V}{GOLD ;}{RETURN}*{RETURN}
{ENTER}{TAB}{TAB}{ENTER}{BACKUP}{GOLD F}DP{RETURN}
```

Step 2

Press **GOLD U** or the **DO** key and type **WRAPTABLE**. This UDP copies your document to a new document in the **WASTEBASKET** folder and calls it *Column Format*. Next, it edits the new document and uses global search and replace in view mode to replace all occurrences of **RETURN * RETURN** with two tab characters. Lastly, it files the document and calls up DECpage.

Step 3

Select the **FP** option from the DECpage menu and select any report style to print the document. We used the **RBTS1** style.

Problem	Cause	Solution
The output document contains a narrow column of text down the page.	Either the ruler contains tabs that you are not using, or you have spaced over to a tab stop instead of using the TAB key.	Remove any extra tabs from your ruler. Then, press GOLD VIEW to determine if you used the space bar rather than the TAB key to move to a tab stop. Delete the spaces and press the TAB key. Also, count the number of tab stops. DECpage expects one tab character for each tab in the ruler.
Text from one or more columns is moving down to the next line in the column.	DECpage wraps column text. If you type a document and try to line up text columns on the screen, you may see this problem.	Move the text around so that each column contains fewer words.

Figure 4.5 Output Document Formatted by DECpage Using UDP

By using DECpage, you can prepare a document that contains paragraphs with one or more language translations, aligned paragraph by paragraph. The following example is a document written in Italian with an English translation in the second column. To print the translation, use the same UDP and follow the same instructions as you used for the troubleshooting guide in Figure 4.5. Figure 4.6 shows the screen display, and Figure 4.7 illustrates the finished document.

```

L-T-----T--T-----R
Turista e Guida      Tourist and Guide

  The fontana meravigliosa!  Come si chiama?
*
What a marvelous fountain!  What is it called?

  Confesso che non lo so, Commendatore.  Sono passato da questa piazza
stamattina e la fontana non sera ancora.
*
I confess that I do not know, Commendatore.  I passed this plaza this
morning and the fountain wasn't there yet.

  (Guarfano il cocchiere a bocca aperta) Ma che cosa mi racconta Lei?
Cio che dice non possibile.
*
  (Looking at the coachman with open mouth) But what are you telling
me? What you say is not possible.

  Eh! Lo so che non e possibile, Commendatore, ma sa, stamattina
conducevo un turista americano in giro per la citta, e quando gli ho
detto che impiegarno piu de vent'anni per costruire il Colosseo mi ha
riposto che in America una costruzione simile si puo completare in
pochi mesi. Poi mi ha detto che una chiesa come quella di San Pietro
gli americani la possono costruire in meno di un anno, e cosi adesso
io veleva rivendicare l'onore dei romani.
*
Eh! I know it's not possible, Commendatore, but, you know, this
morning I was driving an American tourist around the city and when I
told him that they took more than twenty years to construct the
Colosseum, he replied that in America a similar building could be
completed in a few months. Then he told me that Americans could
construct a church like St. Peter's in less than a year, and therefore
I wished now to vindicate the honor of the Romans.

```

Figure 4.6 Language Translation Screen Display

Turista e Guida	Tourist and Guide
Che fontana meravigliosa! Come si chiama?	What a marvelous fountain! What is it called?
Confesso che non lo so, Commendatore. Sono passato da questa piazza stamattina e la fontana non sera ancora.	I confess that I do not know, Commendatore. I passed this plaza this morning and the fountain wasn't there yet.
(Guarfino il cocchiere a bocca aperta) Ma che cosa mi racconta Lei? Cio che dice non possible.	(Looking at the coachman with open mouth) But what are you telling me? What you say is not possible.
Eh! Lo so che non e possible, Commendatore, ma sa, stamattina conducevo un turista americano in giro per la citta, e quando gli ho detto che impiegarno piu de vent'anni per costruire il Colosseo mi ha risposto che in America una costruzione simile si puo completare in pochi mesi. Poi mi ha detto che una chiesa come quella di San Pietro gli americani la possono costruire in meno di un anno, e cosi adesso io volevo rivendicare l'onore dei romani.	Eh! I know it's not possible, Commendatore, but, you know, this morning I was driving an American tourist around the city and when I told him that they took more than twenty years to construct the Colosseum, he replied that in America a similar building could be completed in a few months. Then he told me that Americans could construct a church like St. Peter's in less than a year, and therefore I wished now to vindicate the honor of the Romans.

Figure 4.7 *Language Translation Output Document*

4.6

Sample DECpage UDPs

Here are some UDPs sent to us from the Digital office in California. Copy them and add them to your UDP library. See Chapter 1 for more information on UDPs.

Table 4.2 *Sample DECpage UDPs*

Name	Function	UDP Definition
FLEVEL	Defines a first-level header	{BACKUP} {LINE} {SEL} {LINE} {BOLD} {BACKUP} {LINE} {SEL} {LINE} {UNDERLINE}
SLEVEL	Defines a second-level header	{BACKUP} {LINE} {SEL} {LINE} {BOLD}
TLEVEL	Defines a third-level header	{BACKUP} {LINE} {SEL} {LINE} {UNDERLINE}
BULL	Defines a solid bullet	oo{LEFT}{GOLD D}
RFMT	Reformats a VMS file to WPS-PLUS and inserts a clean ruler	{ADV}E {RETURN} {GOLD R} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {WORD} {SPACE} {LEFT} {LEFT} {LEFT} {LEFT} {LEFT}R {RETURN} {SEL} {GOLD B} {GOLD PARA} {GOLD T}

Creating DECpage Documents from VMS Files

If you have a document created outside WPS-PLUS, you can import the document into WPS-PLUS and reformat the text to conform to your WPS-PLUS rulers. For example, if you have a file created in VMS, you can bring it into your WPS-PLUS directory and then reformat it with your DECpage rulers.

Follow these steps to bring a file into your WPS-PLUS directory:

Step 1

Select the **DT** (Document Transfer) option from the Word and Document Processing menu.

Step 2

Select the **RV** (Receive a Document from VMS) option from the Document Transfer menu.

Step 3

WPS-PLUS prompts you for the name of your VMS file. Give the directory name and file name of your document. For example, enter the following text:

```
USER#: [SYSTEM.WPSPLUS]FILENAME.EXT
```

Press **EXIT** to return to the Word and Document Processing menu.

Follow these steps to edit the document once it is in your WPS-PLUS directory:

Step 1

Select **E** from the Word and Document Processing menu, and go to the top of your document.

Step 2

Press **GOLD R** to call up a ruler and add a right margin.

Step 3

Press **SEL** and advance to the bottom of your document to select the entire page.

Step 4

Press **GOLD PARA**. WPS-PLUS strips out the single carriage returns at the end of each line and rewraps the text according to the WPS-PLUS rulers. It preserves the lines between paragraphs.

You may not want to rewrap your entire document if you have tables, specific tabs, or specific formats. DECpage allows you to keep your tables intact. Follow these steps to select a specific area to rewrap:

Step 1

Begin at the top of your document and press the **SEL** key.

Step 2

Press the **DOWN ARROW** key to advance to the area just before the table or the format that you want to save.

Step 3

Press **GOLD PARA**. Only the section you select rewraps.

Step 4

Press the **SEL** key and the **DOWN ARROW** key to advance to the next section.

Step 5

Press **GOLD PARA**, and begin to select and rewrap text once again.

You can also create a UDP to automate this process.

Suppose a departmental meeting is scheduled for Tuesday. You're working on a very interesting project, and you want to share it with your group. Here's how to use DECpage to prepare a transparency describing your project.

Follow these steps to create a transparency and call it **My Project**.

Step 1

Press **GOLD I** (Cmnd) to begin a control block. Enter **Bottom** and press **RETURN** three times. Enter **My Project** and press **GOLD I** (Cmnd) again to end the control block.

Step 2

Clear your existing ruler and create a new one, with a left margin at 1 and a right margin at 79. Press **RETURN** three times, or enter a level-1 markup character to tell DECpage that the next text you enter will be a first-level header. Enter and center the title, **MY PROJECT**. Bold and underline it. Press **RETURN** once and clear your ruler.

Step 3

Set your new ruler with a left margin at 1, a W (Wrap) at 10, and a right margin at 79.

Step 4

Enter **oo** to create a bulleted list. Then, press the **LEFT ARROW** key once so that your cursor moves one space to the left and is on the second o. Press the **GOLD D** (Dead key) to create a bullet (•). The bullet appears on your screen as a strange-looking box.

Step 5

Press **TAB** once and begin to enter your text. Repeat Step 4 to add more items to your list. When you have entered the last item on your list, clear your ruler once again and file your document.

Step 6

Select the **DP** option at the Word and Document Processing menu to display the DECpage menu. Select the **FP** option, and select **T1** to choose the transparency format.

Step 7

Use special transparency paper to print the transparency. When you present your project at the monthly staff meeting, you'll have an impressive transparency to display. A sample transparency is shown in Figure 4.8.

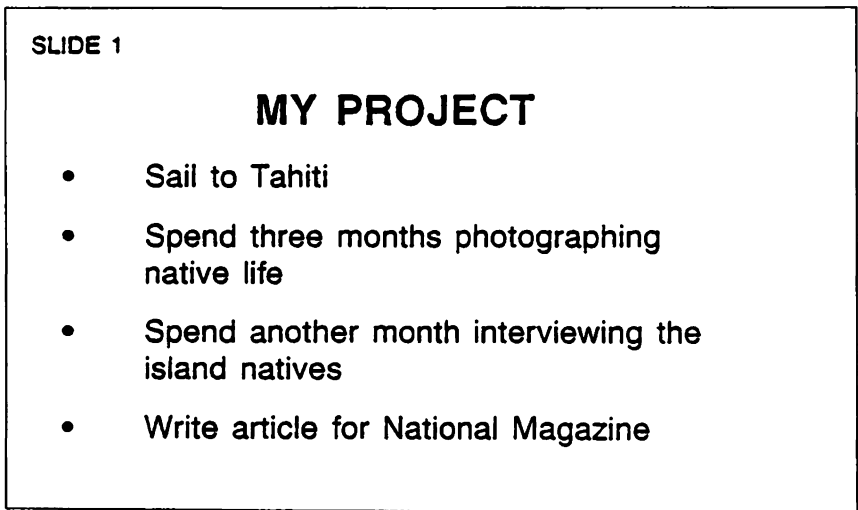


Figure 4.8 *Sample Transparency Output*

Chapter 5

Using Editor Math

Editor Math allows you to add, subtract, multiply, and divide figures, calculate totals, and compute averages. A unique feature of Editor Math is that you can enter an arithmetic problem as you are creating or editing a document. As you scroll through your document, Editor Math calculates the mathematical problems and places the answer in a designated area of your document.

In addition to doing straight calculations, you can also use Editor Math to make simple projections or predictions. For example, if you work in a sales organization, you may want to see what would happen to gross profits if your sales were to increase at a rate of 5 percent or 10 percent next year. Using Editor Math, you can set up a table showing the results of both projections.

5.1 *Fundamentals of Editor Math*

Editor Math only operates on numbers it finds inside Editor Math areas. Editor Math areas are defined by math control blocks.



Never put blank lines in a math control block.

Here's an example of a math control block:

```
----- START CONTROL -----  
WPSMATH  
BEGIN  
FORMULA <:D1> + <:D2> = <:D3>  
----- END CONTROL -----
```

Before we show you some examples of how to use Editor Math to perform calculations, here are a few definitions to help you understand the process.

5.1.1 *Formulas*

Editor Math works with formulas you tailor to your needs, such as the one in the example above. Formula lines always go within an Editor Math control block. (See Chapter 3, for more information about control blocks.) In the formula, you can use any of the following mathematical operators:

- + Plus sign (addition)
- Dash (subtraction)
- * Asterisk (multiplication)
- / Slash (division)
- () Parentheses (order of calculation; calculations within the parentheses are done first)
- = Equal sign (the end of the calculation); every formula must have only one equal sign

5.1.2 *Formats*

The quotation marks, commas, and dollar signs after the formulas are called formats. They tell WPS-PLUS to display the results of the calculation in a specific format. The formats do not affect the calculations. In the following example, the answer displays in your document as \$1,234,567.89.

```
FORMULA <:D1> + <:D2> = <:D3> "$9,999,999.99"
```


5.1.3 *Truncate and Round*

Truncate drops the extra digits from a decimal fraction without rounding off. Round rounds up the number and then truncates it according to the format.

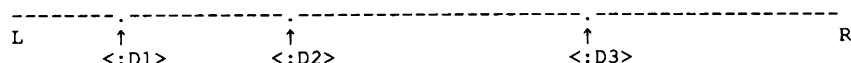
5.1.4 *Decimal Tab Fields*

When Editor Math reads a formula, decimal tab fields, such as `:D1`, tell it where to look for the numbers to use and where to display the results. Consider, for example, the formula, `<:D1> + <:D2> = <:D3>`. The colon in the decimal tab field identifies the field as one that will be used in a math calculation. The D in the field indicates that the field is at a decimal-aligned tab position in the ruler (always use an uppercase D). The 1, 2, and 3 tell Editor Math to look for the numbers aligned at the first, second, and third decimal tab stops in the ruler.



Do not use regular tab stops. The decimal-aligned tab positions are indicated on your ruler by a decimal point.

Here's an example of a decimal-aligned tab ruler:



The field to be calculated always follows the equal sign. In the formula `<:D1> + <:D2> = <:D3>`, Editor Math adds the number at the first tab stop to the number at the second tab stop, and it displays the result at the third tab stop. Don't enter this formula as `<:D3> = <:D1> + <:D2>`; if you do, you'll get an error message.

5.1.5 *Accumulator Fields*

An accumulator field is a placeholder. It stores the numbers you want to calculate but don't want to write out. When you compute averages, you store the items you want to keep track of in an accumulator field, adding and then dividing by the total number of items to calculate the average. Typical accumulator field names can be <:LINES> or <:SUB-TOTAL>. To print the contents of an accumulator field, transfer the value of the accumulator field into a field such as <:D1> or <:T1>. See Figures 5.7 and 5.8 for an example of an accumulator field.

5.1.6 *Total Fields*

Total fields are designated with a T; <:T1> and <:T5>, for example, are total fields. These fields keep a running total of the numbers at a particular decimal tab stop. For instance, the formula <:D1> + <:T1> = <:T1> tells Editor Math to add each number aligned at the first tab stop to a total field called <:T1>. This total is not displayed right away. When you're ready to see the totals, enter a TOTAL control block. You'll find <:T1> displays the total at the first decimal tab stop following the TOTAL control block. See Figures 5.7 and 5.8 for an example of a total field.

5.2 *Plotting Calculations Using Editor Math*

For the next few examples of Editor Math, we'll use a fictitious paint shop, Christa's Crayons, to describe the different Editor Math functions. First, we'll show you the finished inventory report; next, we'll describe how we used Editor Math to create the report; then, we'll show you how the inventory report displays on the screen.

5.2.1 *Adding and Subtracting Numbers*

Christa wants to print an inventory of the paints in stock last month, the paints sold this month and the paints in stock this month. Figure 5.1 shows Christa's completed inventory report.



Editor Math only performs calculations on lines ending with **RETURN**. If you do not press **RETURN** at the end of a line, Editor Math will not make any calculations for that line.

Follow these steps to create the inventory report.

Step 1

Press **GOLD [** (Cmnd) to begin the math control block, and enter the following text:

```
WPSMATH
BEGIN
FORMULA <:D1> - <:D2> = <:D3>
```

Press **GOLD [** (Cmnd) to end the math control block.

Step 2

Enter the text **Inventory Report** and press **GOLD C** (Center) to center the heading between the left and right margins. Create a new ruler with the following tab stops and headings:

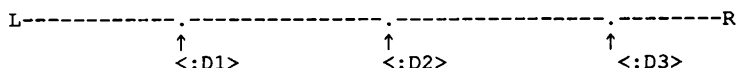
L-----T-----T-----T-----R
Item In Stock Sold In Stock
 Last Month This Month This Month

Inventory Report I			
Item	In Stock Last Month	Sold This Month	In Stock This Month
Red	10	2	8
Orange	8	2	6
Yellow	45	15	30

Figure 5.1 *Inventory Report I Output Document*

Step 3

Create another ruler with decimal-aligned tab stops. The decimal-aligned tab stops <:D1> and <:D2> are the points where you enter the known figures. The decimal-aligned tab stop at <:D3> is the point where Editor Math displays the answer.



Step 4

Enter **Red**, the first item name. Press **TAB**, and enter **10** at <:D1>, the number in stock last month. Press **TAB**, enter **2** at <:D2>, the number sold this month, and press **RETURN**. Editor Math subtracts the number sold this month, 2, from the number in stock last month, 10, and places the number in stock this month, 8, at <:D3>.

Step 5

Enter **Orange**, the second item name. Press **TAB**, and enter **8** at <:D1>, the number in stock last month. Press **TAB**, enter **5** at <:D2>, the number sold this month, and press **RETURN**.

Step 6

Enter **Yellow**, the third item name. Press **TAB**, enter **45** at <:D1>, the number in stock last month. Press **TAB**, enter **15** at <:D2>, the number sold this month, and press **RETURN**.

Step 7

After entering all figures, end Editor Math by putting an **END** control block at the end of your document, as shown here:

```
----- START CONTROL -----  
WPSMATH  
END  
----- END CONTROL -----
```

Figure 5.2 shows the screen after you have entered all the information for the inventory report.

----- START CONTROL -----			
WPSMATH			
BEGIN			
FORMULA <:D1> - <:D2> = <:D3>			
----- END CONTROL -----			
Inventory Report I			
L-----T-----T-----T-----R			
Item	In Stock Last Month	Sold This Month	In Stock This Month
L-----T-----T-----T-----R			
Red	10	2	8
Orange	8	2	6
Yellow	45	15	30
----- START CONTROL -----			
WPSMATH			
END			
----- END CONTROL -----			

Figure 5.2 Inventory Report I Screen Display

5.2.2 Changing the Order of Columns

In the previous example, Editor Math did some simple calculations and placed the answer in the last column of the table. Suppose Christa wanted to find out the number of items in stock this month and list the information in the second column of the table in Figure 5.3. She would add the paints received this month to the paints in stock last month, and subtract the paints sold this month. The result would be the items in stock this month.

Inventory Report II				
Item	In Stock Last Month	In Stock This Month	Received This Month	Sold This Month
Red	10	12	4	2
Orange	8	6	3	5
Yellow	45	44	14	15

Figure 5.3 Inventory Report II Output Document

Editor Math can put the values in any column as long as it has all the necessary numbers when the cursor reaches the end of the line.



Scroll to the top of your Editor Math control block if your figures are not printing properly. Scrolling to the top of the block reactivates Editor Math.

Follow these steps to compute the number of items in stock this month:

Step 1

Begin the Editor Math control block as you did for the first example, and enter the formula shown in Figure 5.4.

Step 2

Add another field and call it **Received This Month**. Adjust your tab settings and decimal settings to allow for another field.

Step 3

Start entering data in the table. Enter **Red**, the first item name. Press **TAB**, and enter **10** at <:D1>, the number in stock last month. Press **TAB** twice to skip the second column. Enter **4**, the number received this month; press **TAB** and enter **2**, the number sold this month; and press **RETURN**. The number in stock this month, **12**, displays in the second column as soon as you press **RETURN** and go on to the next line.

Figure 5.4 shows the screen after all of the information has been entered.

----- START CONTROL -----				
WPSMATH				
BEGIN				
FORMULA <:D1> + <:D3> - <:D4> = <:D2>				
----- END CONTROL -----				
Inventory Report II				
L-----T-----T-----T-----T-----R				
Item	In Stock Last Month	In Stock This Month	Received This Month	Sold This Month
L-----T-----T-----T-----T-----R				
Red	10	12	4	2
Orange	8	6	3	5
Yellow	45	44	14	15
----- START CONTROL -----				
WPSMATH				
END				
----- END CONTROL -----				

Figure 5.4 Inventory Report II Screen Display

5.2.3 Printing Negative Numbers

Christa always keeps two of each item on hand for display. These items are not for sale, even though they are in stock. Christa wants to print a report showing the number of items for sale. This report is illustrated in Figure 5.5. It was created by using Editor Math, which takes the number in stock and subtracts 2 on every line. Notice the -2 and the -1 on the second and third lines; these values indicate a decrease in the number of orange and yellow paints.

Inventory Report III				
Item	In Stock Last Month	In Stock This Month	Change in Inventory	Number Available
Red	10	12	2	10
Orange	8	6	-2	4
Yellow	45	44	-1	42

Figure 5.5 Inventory Report III Output Document

----- START CONTROL -----				
WPSMATH				
BEGIN				
FORMULA <:D2> - <:D1> = <:D3>				
FORMULA <:D2> - 2 = <:D4>				
----- END CONTROL -----				
Inventory Report III				
L-----T-----T-----T-----T-----R				
Item	In Stock Last Month	In Stock This Month	Change in Inventory	Number Available
Red	10	12	2	10
Orange	8	6	-2	4
Yellow	45	44	-1	42
----- START CONTROL -----				
WPSMATH				
END				
----- END CONTROL -----				

Figure 5.6 Inventory Report III Screen Display

You can use the formulas shown in the screen illustration in Figure 5.6 to create the sample inventory report in Figure 5.5.

5.2.4 **Printing Totals and Averages**

When creating the stock report, Christa wanted to find the total number of paintbrush sets sold and the average number sold. Editor Math has a TOTAL command that allows her to total this field and an accumulator option to store the numbers before she computes the average. The resulting inventory report is shown in Figure 5.7.

Inventory Report IV			
Item	Number of Items per Set	Number of Sets Sold	Number of Items Sold
Red	10	14	140
Orange	12	10	120
Yellow	20	9	180
Green	15	3	45
Blue	10	11	110
Violet	10	8	80
Total		55	675
Average =			112.5

Figure 5.7 Inventory Report IV Output Document

We used the four formula lines shown in Figure 5.8 to produce the report in Figure 5.7. Each formula line is described here:

- The first formula line multiplies the number of paintbrushes in each set by the number of sets sold.
- The second formula line keeps track of the total number of sets sold.
- The third formula line keeps track of the total number of items sold.
- The fourth formula line is an accumulator field. It's keeping track of the number of lines (the number of items) to be used as a divisor when computing the average number of items sold.

Figure 5.8 shows the screen after all information has been entered for the inventory report.

----- START CONTROL -----			
WPSMATH			
BEGIN			
FORMULA <:D1> * <:D2> = <:D3>			
FORMULA <:D2> + <:T2> = <:T2>			
FORMULA <:D3> + <:T3> = <:T3>			
FORMULA <:LINES> + 1 = <:LINES>			
----- END CONTROL -----			
Inventory Report IV			
Item	Number of Items per Set	Number of Sets Sold	Number of Items Sold
Red	10	14	140
Orange	12	10	120
Yellow	20	9	180
Green	15	3	45
Blue	10	11	110
Violet	10	8	80
----- START CONTROL -----			
WPSMATH			
TOTAL			
----- END CONTROL -----			
Total		55	675
----- START CONTROL -----			
WPSMATH			
SET <:T3> / <:LINES> = <:T1>			
TOTAL			
Average =			112.5
----- START CONTROL -----			
WPSMATH			
END			
----- END CONTROL -----			

Figure 5.8 Inventory Report IV Screen Display

5.3 Changing the Format of Numbers

With Editor Math, you can reformat the way numbers are printed. Editor Math will write answers as dollars and cents, limit the number of decimal places, or use special symbols in the answers.

To format the result of an equation, you enclose it in quotation marks. Here are some examples:

FORMULA <:D1> / <:D2> = <:D3> "\$"

The answer prints as \$1000000.

FORMULA <:D1> / <:D2> = <:D3> "99,999.99"

The answer prints as 10,000.00.

FORMULA <:D1> / <:D2> = <:D3> "(\$*99999.99)"

The answer prints as (\$*10000.00).

The 9s tell Editor Math the way to format the numbers. Select the highest number of places to the right and left of the decimal point; then, use the same number of 9s within the quotation marks. Do not use numerals other than 9 in a format command.

Figure 5.9 shows a sample inventory report with columns formatted to show dollars and decimal places.

Inventory Report V			
Item	Price	Number Sold	Sales
Red	\$2100.00	1500	\$3,150,000.00
Orange	\$1250.25	512	***640,128.00
Yellow	\$ 8.98	12,000	***107,760.00
Green	\$ 75.00	200	***15,000.00

Figure 5.9 *Inventory Report V Output Document*

You can set up the report by copying the screen display in Figure 5.10.

```
----- START CONTROL -----
WPSMATH
BEGIN
FORMULA <:D1> * <:D2> = <:D3>          "$*9,999,999.99"
----- END CONTROL -----

Inventory Report V

Item              Price              Number Sold              Sales
Red               $2100.00              1500                     $3,150,000.00
Orange            $1250.25              512                       ***640,128.00
Yellow            $   8.98             12,000                    ***107,760.00
Green             $  75.00              200                       ***15,000.00

----- START CONTROL -----
WPSMATH
END
----- END CONTROL -----
```

Figure 5.10 Inventory Report V Screen Display

5.3.1

Constructing What-If Problems

Editor Math can be used to make simple predictions and comparisons. For example, you may want to predict sales for next year, showing both a 10 percent increase and a 16 percent increase over this year's sales. Figure 5.11 illustrates the way to compare sales commissions by using two different rates.

Sales Commission Report			
Salesperson			
=====			
	1989 Sales	1990 Increase	
		+ 10%	+ 16%
Dufresne	\$2,000.00	\$2,200.00	\$2,320.00
Jackson	\$ 212.79	\$234.06	\$246.83
James	\$ 1836.77	\$2,020.44	\$2,130.65

Figure 5.11 Sales Commission Report Output Document

You can set up the Editor Math example of Figure 5.11 as shown in Figure 5.12. Note that the first FORMULA shows a predicted sales increase in 1990 of 10 percent (1989 sales multiplied by 1.10); the second FORMULA is for a predicted increase of 16 percent (1989 sales multiplied by 1.16). Enter the salesperson's name and the amount of the 1987 sales. Editor Math calculates the projected 1990 sales for the two projected rates of increase.

Sales Commission Report			
----- START CONTROL -----			
WPSMATH			
BEGIN			
FORMULA <:D1> * 1.10 = <:D2> "\$999,999.99"			
FORMULA <:D1> * 1.16 = <:D3> "\$999,999.99"			
TRUNCATE			
----- END CONTROL -----			
Salesperson			

1989 Sales		1990 Increase	
		+ 10%	+ 16%
Dufresne	\$2,000.00	\$2,200.00	\$2,320.00
Jackson	\$ 212.79	\$234.06	\$246.83
James	\$ 1836.77	\$2,020.44	\$2,130.65
----- START CONTROL -----			
WPSMATH			
END			
----- END CONTROL -----			

Figure 5.12 Sales Commission Report Screen Display

Chapter 6

Database Management with List Processing

A database is a list of related items. You can have a customer database, a course list database, or a student database, to name a few. This type of database is called a relational database because all the items in the list are related — they have something in common. Here's an example of a customer relational database; all these businesses subscribe to *Business News* magazine.

Database

Christa's Crayons
106 Main Street
Lubbock, TX 55588

Cooper's Cars
833 Lincoln Blvd.
Santa Clara, CA 33081

Mike's Meat Market
760 Northern Blvd
Flushing, NY 01422

6.1

Fundamentals of List Processing

The information about each customer is called the customer record. With WPS-PLUS the process of managing these records is called list processing. Using list processing, you can electronically search your database, select specific items, sort these items, and produce reports, letters, or charts. For example, you can send promotional campaign letters to all customers living in Massachusetts or a letter of welcome to all incoming students.

Before we show you some examples of how to create and manipulate a database, we give a few definitions to help you understand the process.

6.1.1

Field

A field is a category of information. For instance, you can break up a name into three categories of information, or fields: first name, middle name, and last name. You can break up an address into four: street, city, state, and zip code.

6.1.2

Field Names

Field names are enclosed within angle brackets. An example of a field name is <STREET>:

```
<STREET>1 Arlington Street
  ↑
  Field Name
```

Always type a field name in exactly the same way each time you use it. The field name <STREET> is not the same as <Street> or <street>. Although a field name can contain a combination of uppercase and lowercase letters, it's a good idea to keep all field names in uppercase letters.

6.1.3

Numeric Fields

Numeric fields are used in calculations and in formulas. To create a numeric field, enter a colon (:) before the field name:

```
<:AMOUNT>  
  ↑  
  Numeric Field
```

6.1.4

Field Values

A field value is the text after the field name. In the following example, 1 Arlington Street is the field value:

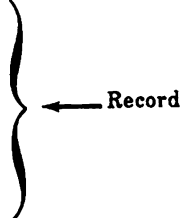
```
<STREET>1 Arlington Street  
      ↑  
      Field Value
```

Enter the field value exactly as you want it to appear. Any spaces, tabs, or invisible characters become part of the output document.

Record

A record is a collection of related field names:

```
<TITLE>Mr.  
<FNAME>John  
<MNAME>S.  
<LNAME>Temple  
<STREET>1 Arlington Street  
<CITY>Watertown  
<STATEABB>MA  
<STATE>Massachusetts  
<ZIP>02213  
<:RENEW>102389  
<>
```



6.2

Creating the Documents

To run list processing, you create these documents:

- The list document
- The list specification document
- The form document

WPS-PLUS uses the list document, the list specification document, and the form document to produce another document:

- The output document

Figure 6.1 Shows examples of these four documents.

6.2.1

Creating the List Document

The list document *is* your database. Anticipate the fields you may need at a future date and include them when you first create the database. We included the field <:RENEW> to select expiring subscriptions and send out renewal notices.

Figure 6.1 illustrates the list document we used for this example. Notice that each record ends with a double angle bracket and two carriage returns. You can have as many records as you have letters to send. There is a limit of 25,000 lines for each list document.

Follow these steps to create the list document:

Step 1

Create a new folder and call it *LIST PROCESSING*. Create a new document and call it *Fiction — List Document*.

Step 2

Enter the blank record in the document *Fiction — List Document* exactly as shown below. Remember to end each blank record with

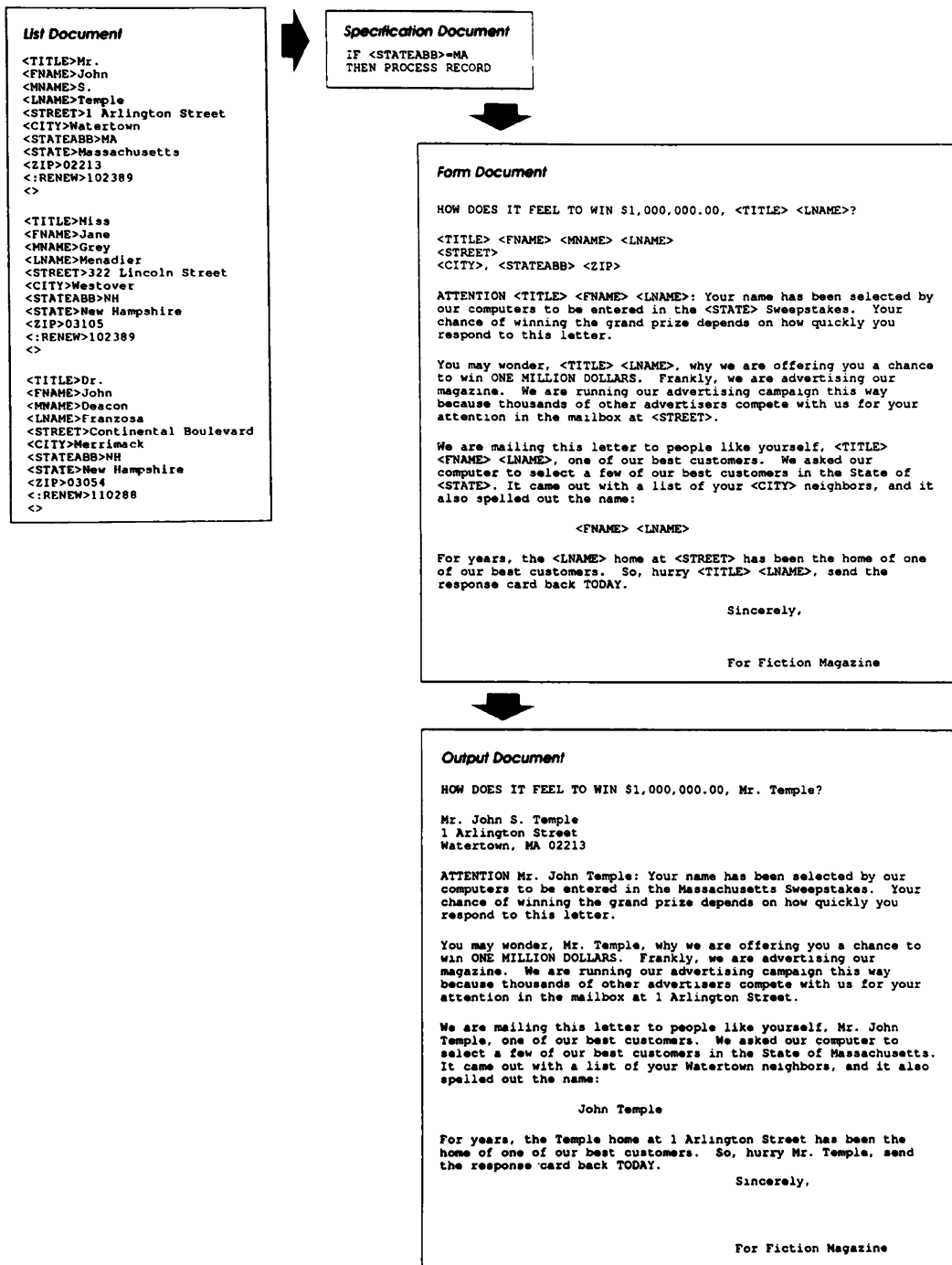


Figure 6.1 How List Processing Works

double angle brackets and two carriage returns. To save time, cut and paste the blank record several times. Press the following keys after you enter the first record, **BACKUP**, **PARA**, **SEL**, **PARA**, **GOLD CUT**. The blank record is now in your paste area. Press the **PASTE** key three times. Now you have four blank records.

```
<TITLE>
<FNAME>
<MNAME>
<LNAME>
<STREET>
<CITY>
<STATEABB>
<STATE>
<ZIP>
<:RENEW>
<>
```



Store the blank record in your library document. Press **GOLD L** (Libry) and call up this blank record whenever you want to add a new name to the list.

Filling in Each Record

Step 1

Go back to the top of the List Document. Enter the title of your first customer. We'll begin with **Mr.** Don't press **RETURN**. Instead, press the **ENTER** key on the numeric keypad. This key moves the cursor to the next right angle bracket.

Step 2

Enter the first name of the customer, **John**. Press the **ENTER** key again to fill in the rest of the information for the first record, as shown here:

```
<TITLE>Mr.  
<FNAME>John  
<MNAME>S.  
<LNAME>Temple  
<STREET>1 Arlington Street  
<CITY>Watertown  
<STATEABB>MA  
<STATE>Massachusetts  
<ZIP>02213  
<:RENEW>102389  
<>
```

Press the RETURN key twice to leave a double space between each record.

Step 3

Enter the information for the second record, pressing the ENTER key to move the cursor to each angle bracket:

```
<TITLE>Miss  
<FNAME>Jane  
<MNAME>Grey  
<LNAME>Menadier  
<STREET>322 Lincoln Street  
<CITY>Westover  
<STATEABB>NH  
<STATE>New Hampshire  
<ZIP>03105  
<:RENEW>102389  
<>
```

Step 4

Enter the information for the third record.

```
<TITLE>Dr.  
<FNAME>John  
<MNAME>Deacon  
<LNAME>Franzosa  
<STREET>Continental Boulevard  
<CITY>Merrimack  
<STATEABB>NH  
<STATE>New Hampshire  
<ZIP>03054  
<:RENEW>110288  
<>
```



Use the PARA key on the numeric keypad to move from record to record.

Step 5

Enter your own name and address for the fourth record and fill in the other information. Press **GOLD F** to file the list document.

6.2.2 *Creating the List Specification Document*

The list specification document tells WPS-PLUS which records in the list document to process. You can specify all records or only those records that meet certain requirements. For our contest letter, we want to process only customers living in Massachusetts.

Follow these steps to create the list specification document shown in Figure 6.1:

Step 1

Create a new document in the same folder and call it *Fiction — List Specification*.

Step 2

Enter the paragraph below so that you will process only the customers living in Massachusetts. Enter the field value immediately after the equal sign (=), and press the **RETURN** key. The words **THEN PROCESS RECORD** must occur on a separate line — that is, after a hard carriage return.

```
IF <STATEABB>=MA  
THEN PROCESS RECORD
```

If you want to process **ALL** the records, enter

```
PROCESS RECORD
```

Step 3

Press **GOLD F** (File) to file the list specification document.



When you create your documents, note the document numbers that display in the upper right corner of your screen. When WPS-PLUS prompts you for the folder and title of each document, simply erase the existing documents by pressing the LF (Line Feed) key. Press the **DOWN ARROW** key until you reach the Number field, and enter the identifying number of each list processing document.

6.2.3

Creating the Form Document

The form document, the third document you create to produce the output document, is the text you are personalizing; it can be a letter, a statement, or a notice. It uses the list document and, in producing the final letter, processes only those records that meet specific criteria.



Insert a **NEW PAGE** marker at the end or the beginning of the form document, so that each letter begins on a separate page.

Create a new document in the folder *LIST PROCESSING*, and call it *Fiction — Form Document*. Copy the text of the letter as shown in Figure 6.2.

File the form document. You have now created the three documents you need to begin list processing: the list document, the form document and the list specification document.

6.2.4

Creating the Output Document

The output document is your final personalized letter. It is formatted just as you specified in your form document and it contains the records you specified in the list specification document.

HOW DOES IT FEEL TO WIN \$1,000,000.00, <TITLE> <LNAME>?

<TITLE> <FNAME> <MNAME> <LNAME>
<STREET>
<CITY>, <STATEABB> <ZIP>

ATTENTION <TITLE> <FNAME> <LNAME>: Your name has been selected by our computers to be entered in the <STATE> Sweepstakes. Your chance of winning the grand prize depends on how quickly you respond to this letter.

You may wonder, <TITLE> <LNAME>, why we are offering you a chance to win ONE MILLION DOLLARS. Frankly, we are advertising our magazine. We are running our advertising campaign this way because thousands of other advertisers compete with us for your attention in the mailbox at <STREET>.

We are mailing this letter to people like yourself, <TITLE> <FNAME> <LNAME>, one of our best customers. We asked our computer to select a few of our best customers in the State of <STATE>. It came out with a list of your <CITY> neighbors, and it also spelled out the name:

<FNAME> <LNAME>

For years, the <LNAME> home at <STREET> has been the home of one of our best customers. So, hurry <TITLE> <LNAME>, send the response card back TODAY.

Sincerely,

For Fiction Magazine

----- NEW PAGE -----

Figure 6.2 Example of a Form Document

When you look at the output document in Figure 6.3, you can see that the field names in the form document were replaced by the information from the first record of the customer list. For example, <TITLE> was replaced by Mr., and <FNAME> was replaced by John. The NEW PAGE marker at the bottom of the form letter automatically advances the paper to a new page when the first letter finishes printing.

HOW DOES IT FEEL TO WIN \$1,000,000.00, Mr. Temple?

Mr. John S. Temple
1 Arlington Street
Watertown, 02213

ATTENTION Mr. John Temple: Your name has been selected by our computers to be entered in the Massachusetts Sweepstakes. Your chance of winning the grand prize depends on how quickly you respond to this letter.

You may wonder, Mr. Temple, why we are offering you a chance to win ONE MILLION DOLLARS. Frankly, we are advertising our magazine. We are running our advertising campaign this way because thousands of other advertisers compete with us for your attention in the mailbox at 1 Arlington Street.

We are mailing this letter to people like yourself, Mr. John Temple, one of our best customers. We asked our computer to select a few of our best customers in the State of Massachusetts. It came out with a list of your Watertown neighbors, and it also spelled out the name:

John Temple

For years, the Temple home at 1 Arlington Street has been the home of one of our best customers. So, hurry Mr. Temple, send the response card back TODAY.

Sincerely,

For Fiction Magazine

Figure 6.3 Example of an Output Document

6.3 Running List Processing

To run list processing, press the **NEXT SCREEN** key from the Word and Document Processing Menu to advance to the second screen. Type **LP** and follow the instructions on the screen to process and print the documents. A List Processing Menu is shown in Figure 6.4.

After you select the documents you want to process, the system displays the list processing summary screen illustrated in Figure 6.5.

List Processing Menu

Current Output Document

Folder:
 Title:
 Date: Modified on:
 Number:

DDC Document Processing
 SR Sort Processing

T Test Specification Document TR Training
 P Print Output Document

Enter option and press RETURN

Figure 6.4 List Processing Menu

The list specification document, as you will recall, tells WPS-PLUS to process only the customers from Massachusetts. Therefore, only John Temple's letter prints. When the letters have been processed, WPS-PLUS displays the List Processing Summary Screen, showing the number of records processed.

List Processing Documents Selected

List Document:

Folder: LIST PROCESSING Number: 000298
 Title: List - Fiction

Specification Document:

Folder: LIST PROCESSING Number: 000299
 Title: Spec - Fiction

Form Document:

Folder: LIST PROCESSING Number: 000297
 Title: Form - Fiction

Output Document:

Folder: LIST PROCESSING Number: 000303
 Title: Fiction - Output Document

Press RETURN to start List Processing with these documents or
 NEXT SCREEN to select other documents

New document selected

Figure 6.5 List Processing Summary Screen

You can create a UDP to select and print the records automatically. We'll show you how to create a UDP that calls up the list processing option, chooses the correct list processing documents and prints the letters. You can create your own UDPs to automate your list processing documents. (For more information on creating UDPs, see Chapter 1.)

To process the promotional letters from *Fiction Magazine*, you can enter the following keystrokes to create a UDP:

- Enter **LP{RETURN}** to invoke the list processing option.
- Enter **DOC{RETURN}** to select the document processing option.
- Enter **{GOLD A}** to select new documents.
- Enter **{UP}{LF}** to back up to the folder field for the list document and delete the current folder.
- Enter **{DOWN}{LF}** to advance to the title field for the list document and delete the current title.
- Enter **{DOWN}{LF}** to advance to the document number field for the list document and delete the current document number.
- Enter **740{RETURN}** to enter the correct list document number. We entered 740 as our document number. Note YOUR document number and enter it here.
- Enter **{UP}{LF}** to back up to the folder field for the list specification document and delete the current folder.
- Enter **{DOWN}{LF}** to advance to the title field for the list specification document and delete the current document title.
- Enter **{DOWN}{LF}** to advance to the document number field for the list specification document and delete the current document number.
- Enter **739{RETURN}** to enter the correct document number. We entered 739 as our document number. Note your document number and enter it here.

(continues)

- Enter **{UP}{LF}** to enter the correct document number. We entered 739 as our document number. Note your document number and enter it here.
- Enter **{DOWN}{LF}** to enter the correct document number. We entered 739 as our document number. Note your document number and enter it here.
- Enter **744{RETURN}** to enter YOUR form document number.
- Enter **COD{RETURN}** to create a new output document.
- Enter **NEW OUTPUT{DOWN}** to enter a new title for your document.
- Enter **OUTPUT{RETURN}** to enter a new keyword for your document. This is an optional field.
- Enter **{RETURN}** to begin list processing with the current documents.
- Enter **{RETURN}** to begin the selection process.
- Enter **P{RETURN}** to print the document.
- Enter **{RETURN}** to accept the current print settings.
- Enter **{ADV}** to return to the Word and Document Processing menu.

Here's the way the UDP looks. Enter it exactly as it appears here, substituting the names and numbers of *your* list processing documents.

```
LP{RETURN}DOC{RETURN}{GOLD A}{UP}{LF}{DOWN}{LF}
{DOWN}{LF}740{RETURN}{UP}{LF}{DOWN}{LF}{DOWN}{LF}
739{RETURN}{UP}{LF}{DOWN}{LF}{DOWN}{LF}744
{RETURN}COD{RETURN}NEW OUTPUT{DOWN}OUTPUT
{RETURN}{RETURN}{RETURN}P{RETURN}{RETURN}{ADV}
```

It may take a long time to document the procedures to create your list processing UDP, but once it's created, just press **GOLD U**, enter the name of the list processing UDP, and the entire procedure is done automatically.

6.5

List Processing Examples

The next few examples illustrate additional list processing situations to give you ideas for streamlining routine tasks. They are document processing solutions for more productive management. Using these solutions, you'll be able to automate several time-consuming office tasks, such as sending letters, handling mail, taking phone messages, or creating an online telephone directory.

You can copy the list documents, the list specification documents, and the form documents to create the output documents shown here, or you can create your own by using our examples as guides. Most of the applications were designed for the office, but you can tailor them to your own environment.

6.5.1

A Student Letter

Earlier in this chapter, we suggested you plan your database carefully to take into consideration fields you may need at some other time. For example, if you're creating a student database for student letters, add an extra field and call it <TYPE>. Enter the type of student: incoming, sophomore, junior, senior, or graduate. By using this technique at the beginning of the school year, when you're mailing out notices, registration letters, welcome letters or announcements of graduate courses, you'll be sure to send the right letter to the right student.

Figure 6.6 shows the documents we used to create different student letters from the same database.



Remember to include a NEW PAGE marker at the beginning or the end of the form document so that each letter will print on a separate page.

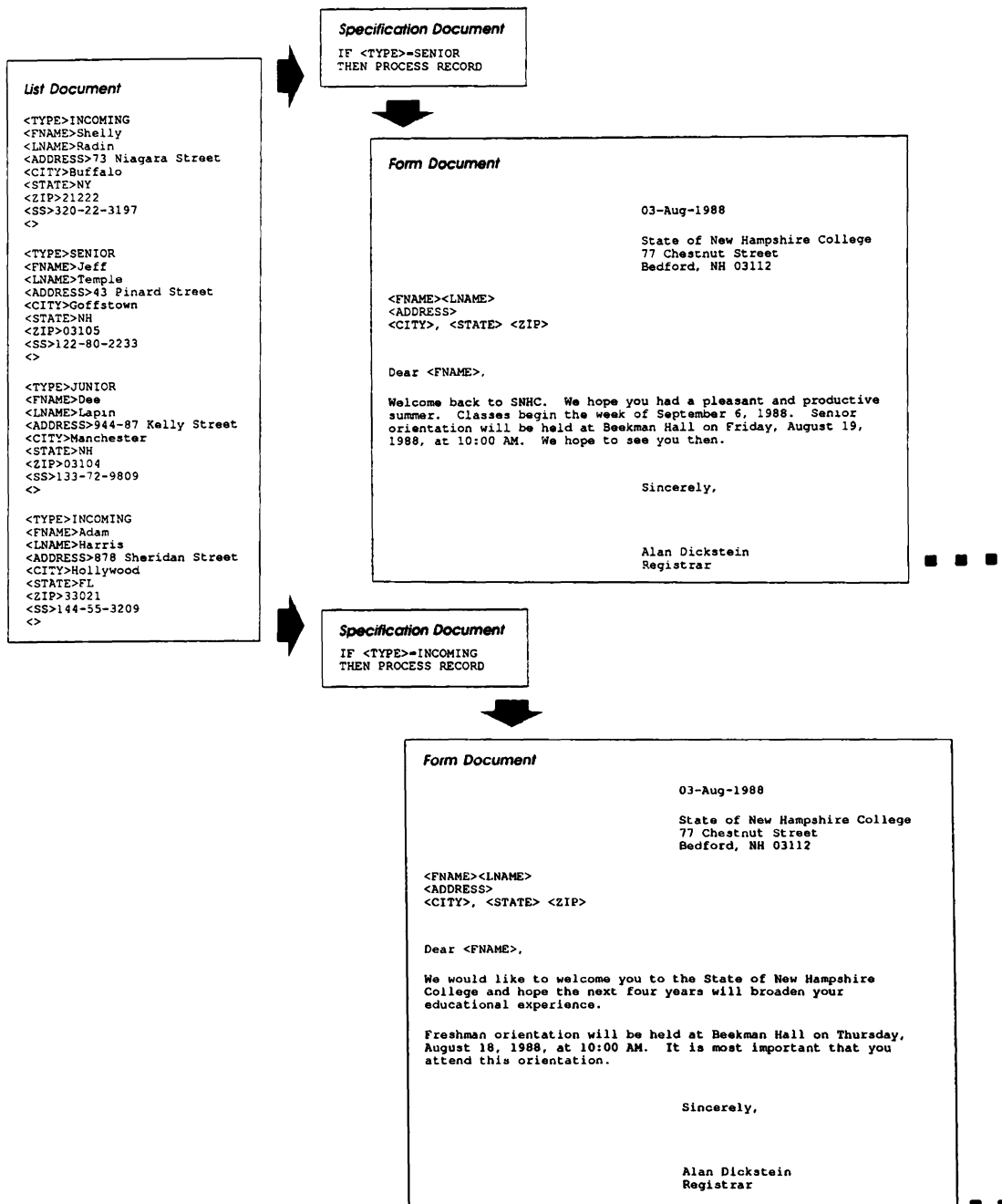


Figure 6.6 Student Letter Example

Output Document

03-Aug-1988

State of New Hampshire College
77 Chestnut Street
Bedford, NH 03112

Jeff Temple
43 Pinard Street
Goffstown, NH 03105

Dear Jeff,

Welcome back to SNHC. We hope you had a pleasant and productive summer. Classes begin the week of September 6, 1988. Senior orientation will be held at Beekman Hall on Friday, August 19, 1988, at 10:00 AM. We hope to see you then.

Sincerely,

Alan Dickstein
Registrar

Output Document

03-Aug-1988

State of New Hampshire College
77 Chestnut Street
Bedford, NH 03112

Adam Harris
878 Sheridan Street
Hollywood, FL 33021

Dear Adam,

We would like to welcome you to the State of New Hampshire College and hope the next four years will broaden your educational experience.

Freshman orientation will be held at Beekman Hall on Thursday, August 18, 1988, at 10:00 AM. It is most important that you attend this orientation.

Sincerely,

Alan Dickstein
Registrar

6.5.2 *An Invitation*

After you create a list of your customers, it's easy to send out notices of new products, special announcements, or invitations. For example, you can send out a letter similar to the one shown in Figure 6.7 to announce a new product line.

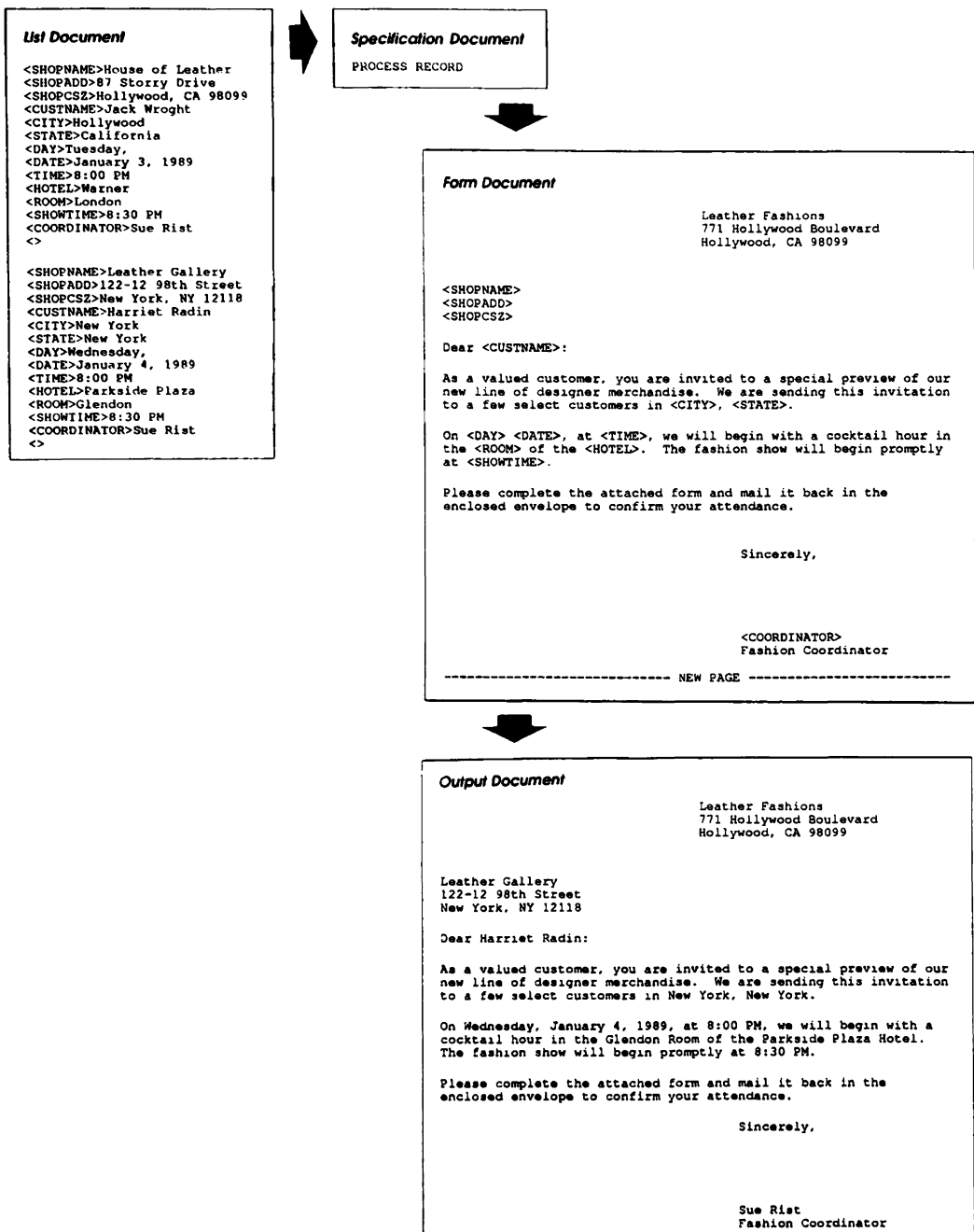


Figure 6.7 Invitation Example

6.5.3

Mail Log

The mail log is designed to track and file mail. It generates a daily record of the mail received, and it can file the mail chronologically. You can then quickly search for all mail from a particular person, company, subject, or date. Figure 6.8 illustrates our mail log example.

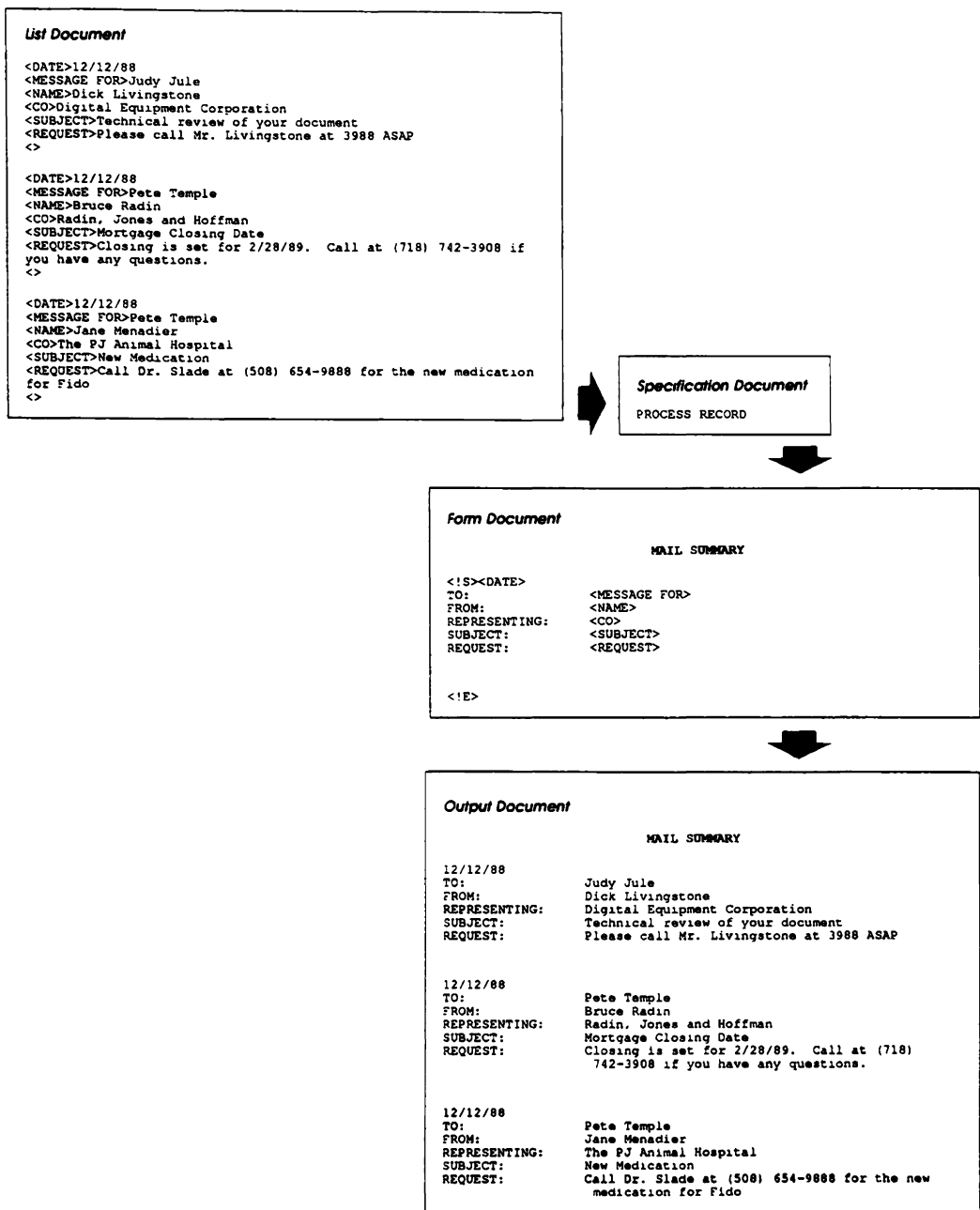


Figure 6.8 Mail Log Example

6.5.4 Project Authorization Form

Whenever we start a new project in our group, the funding group signs a project authorization form, as illustrated in Figure 6.9. You can copy this example and adapt it to your own business needs.

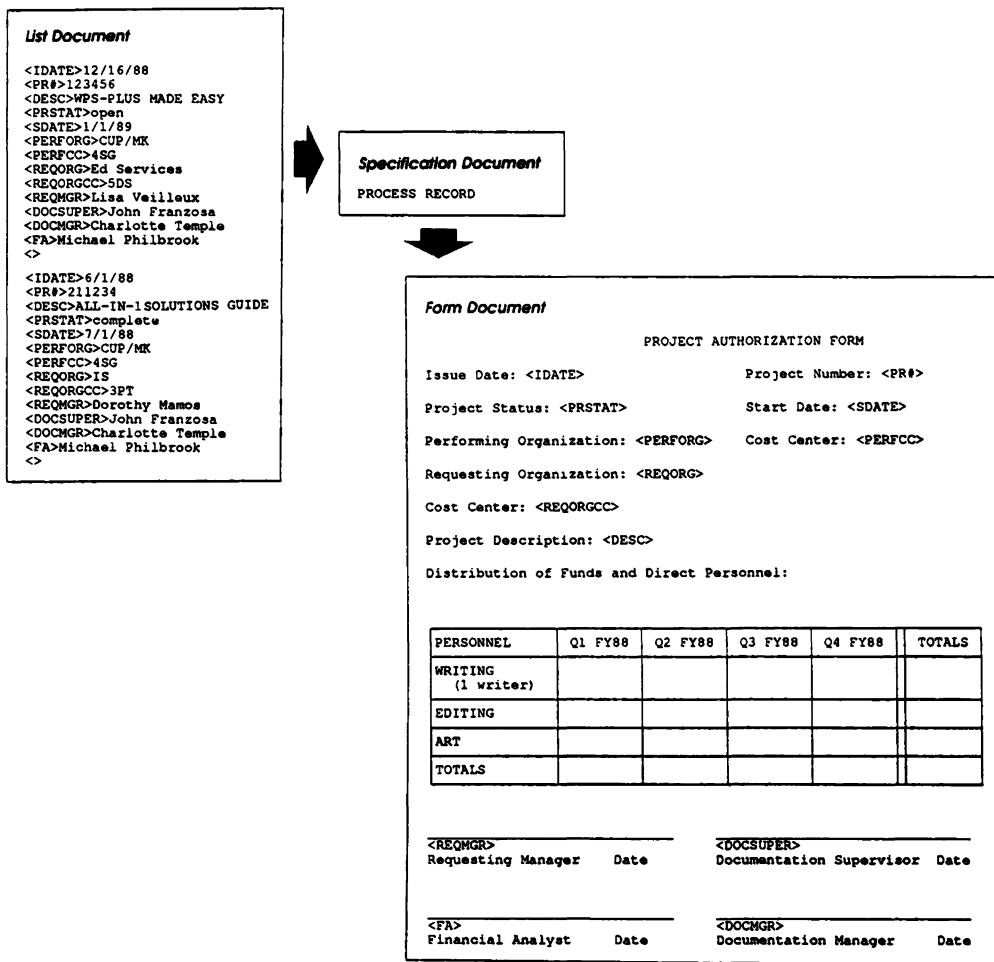


Figure 6.9 Project Authorization Form Example

Output Document

PROJECT AUTHORIZATION FORM

Issue Date: 12/16/88 Project Number: 123456
Project Status: open Start Date: 1/1/89
Performing Organization: CUP/MK Cost Center: 4SG
Requesting Organization: Ed Services
Cost Center: SDS
Project Description: WPS-PLUS MADE EASY
Distribution of Funds and Direct Personnel:

PERSONNEL	Q1 FY88	Q2 FY88	Q3 FY88	Q4 FY88	TOTALS
WRITING (1 writer)					
EDITING					
ART					
TOTALS					

Lisa Veilleux
Requesting Manager Date

John Franzosa
Documentation Supervisor Date

Michael Philbrook
Financial Analyst Date

Charlotte Temple
Documentation Manager Date

6.5.5

Travel Itinerary

A travel itinerary helps keep track of the travel arrangements within the group. The list document may seem long and cumbersome at first, but once you create the blank record, you can either store it in your library document or use the cut-and-paste option to add new records.

You can use the same list document with a different form document to send a confirmation letter to the group member who will be traveling. Figure 6.10 shows the documents in our example of a travel itinerary and confirming letter for a member of our staff.

List Document

```
<FNAME>Mary
<LNAME>MacDougall
<BADGE>243872
<CC>4M1
<TEL>(603) 624-1231
<OTEL>(DTN) 264-8754
<MGR>Martha Dufresne
<ADV>$900.00
<ARRANGED>Kim Batchelder
<DATE>06/24/88
<DESTINATION>Ottawa
<HOTEL>Ottawa Hotel
<HOTELADD>88 Champlaine Drive, Ottawa, Canada
<RENTAL>Franzosa's Rent-a-Car
<TICKETS>06/28/88
<DATE1>06/30/88
<LEAVE1>Manchester
<AT1>6:40 PM
<FLN01>453
<AR1>Ottawa
<AT2>9:05 PM
<DATE2>07/02/88
<LEAVE2>Ottawa
<AT3>9:30 AM
<FLN02>453A
<AR2>Manchester
<AT4>11:35 AM
<>

<FNAME>Sue
<LNAME>Rist
<DESTINATION>Santa Clara
<BADGE>177522
<CC>4M1
<TEL>(603) 624-0907
<OTEL>(DTN) 264-2211
<MGR>Martha Dufresne
<ADV>$1200.00
<ARRANGED>Kim Batchelder
<DATE>08/24/88
<TICKETS>08/28/88
<DATE1>08/30/88
<LEAVE1>Logan
<AT1>8:10 AM
<FLN01>008
<AR1>Santa Clara
<AT2>9:05 PM
<DATE2>07/02/88
<LEAVE2>Ottawa
<AT3>9:30 AM
<FLN02>453A
<AR2>Manchester
<AT4>11:35
<>
```

■ ■ ■

Figure 6.10 *Travel Itinerary Example*

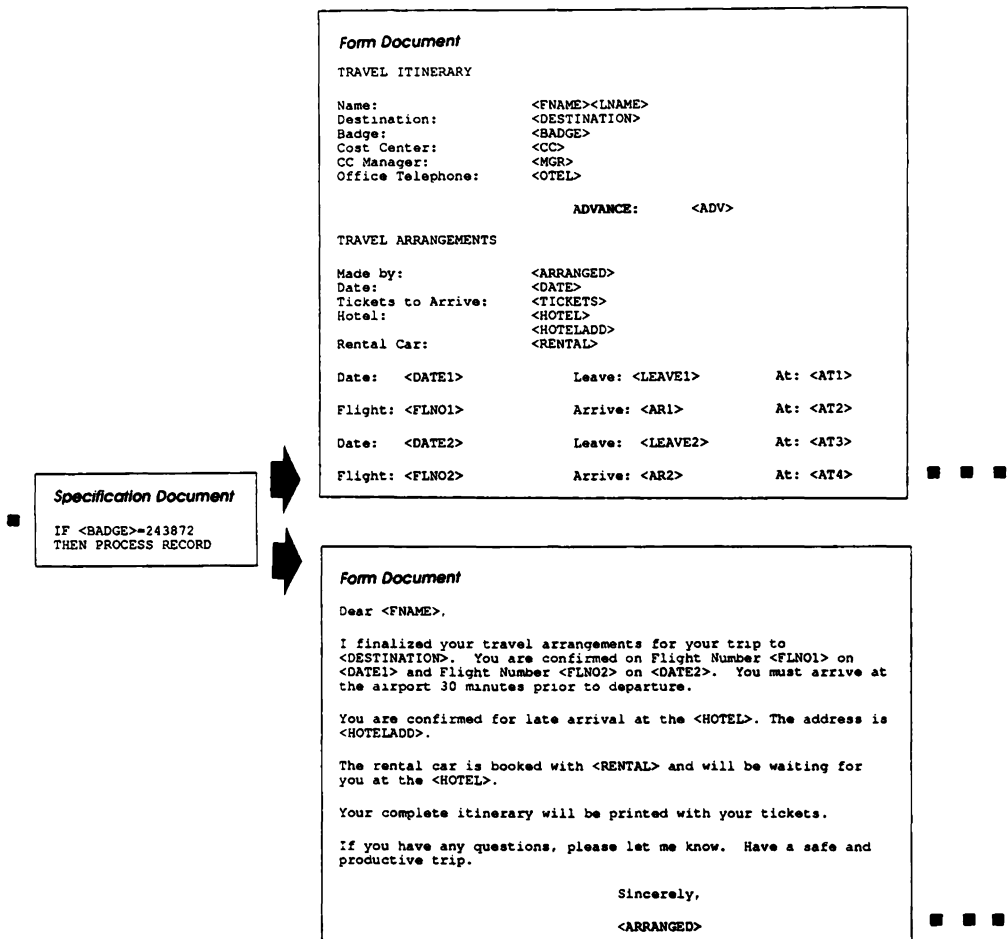


Figure 6.10 Travel Itinerary Example (Continued)

Output Document

TRAVEL ITINERARY

Name: Mary MacDougall
Destination: Ottawa
Badge: 243872
Cost Center: 4M1
CC Manager: Martha Dufresne
Office Telephone: (DTN) 264-8754

ADVANCE: \$900.00

TRAVEL ARRANGEMENTS

Made by: Kim Batchelder
Date: 06/24/88
Tickets to Arrive: 06/28/88
Hotel: Ottawa Hotel
88 Champlaine Drive, Ottawa, Canada
Rental Car: Franzosa's Rent-a-Car

Date: 06/30/88	Leave: Manchester	At: 6:40 PM
Flight: 453	Arrive: Ottawa	At: 9:05 PM
Date: 07/02/88	Leave: Ottawa	At: 9:30 AM
Flight: 453A	Arrive: Manchester	At: 11:35 AM

Output Document

Dear Mary,

I finalized your travel arrangements for your trip to Ottawa. You are confirmed on Flight Number 453 on 06/30/88 and Flight Number 453A on 07/02/88. You must arrive at the airport 30 minutes prior to departure.

You are confirmed for late arrival at the Ottawa Hotel. The address is 88 Champlaine Drive, Ottawa, Canada.

The rental car is booked with Franzosa's Rent-a-Car and will be waiting for you at the Ottawa Hotel.

Your complete itinerary will be printed with your tickets.

If you have any questions, please let me know. Have a safe and productive trip.

Sincerely,

Kim Batchelder

You can create a customized directory for telephone numbers as shown in Figure 6.11. You can also use this information to produce mailing labels, envelopes, customized letters, personal directories, or business directories.

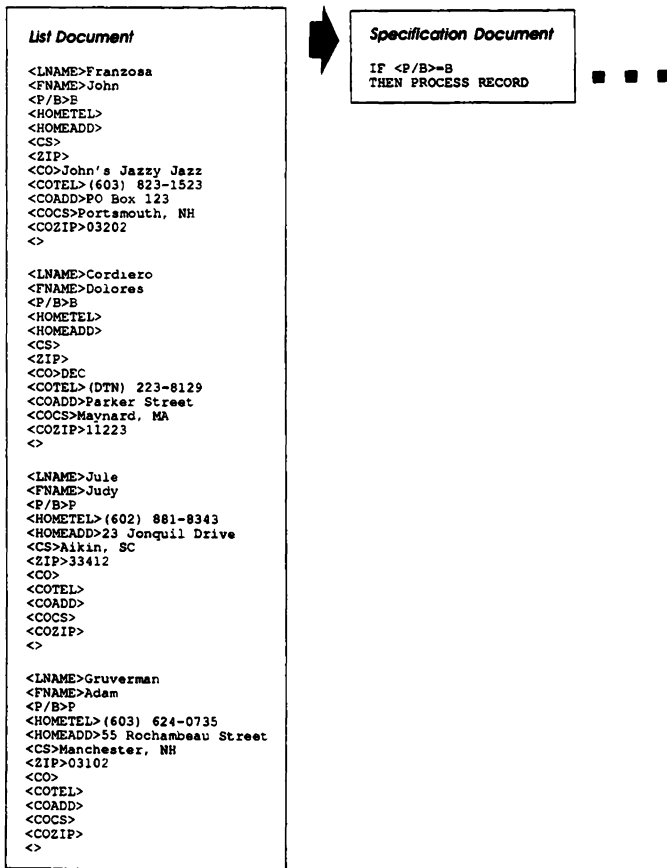
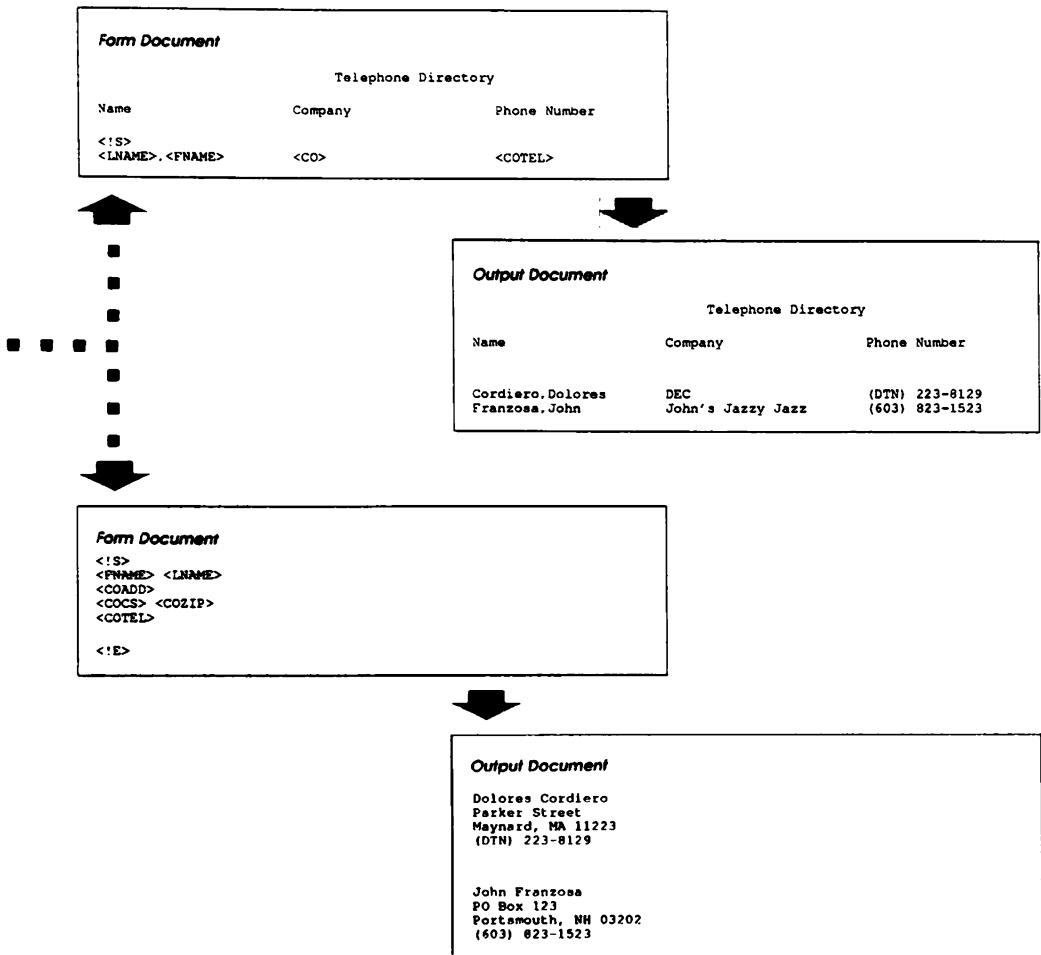


Figure 6.11 Telephone and Address Directory Example



6.5.7

Delegation of Authority Notice

A notice of delegation of authority can be used when key personnel are out of the office on temporary leave or on a business trip. Figure 6.12 illustrates the documents for such a notice.

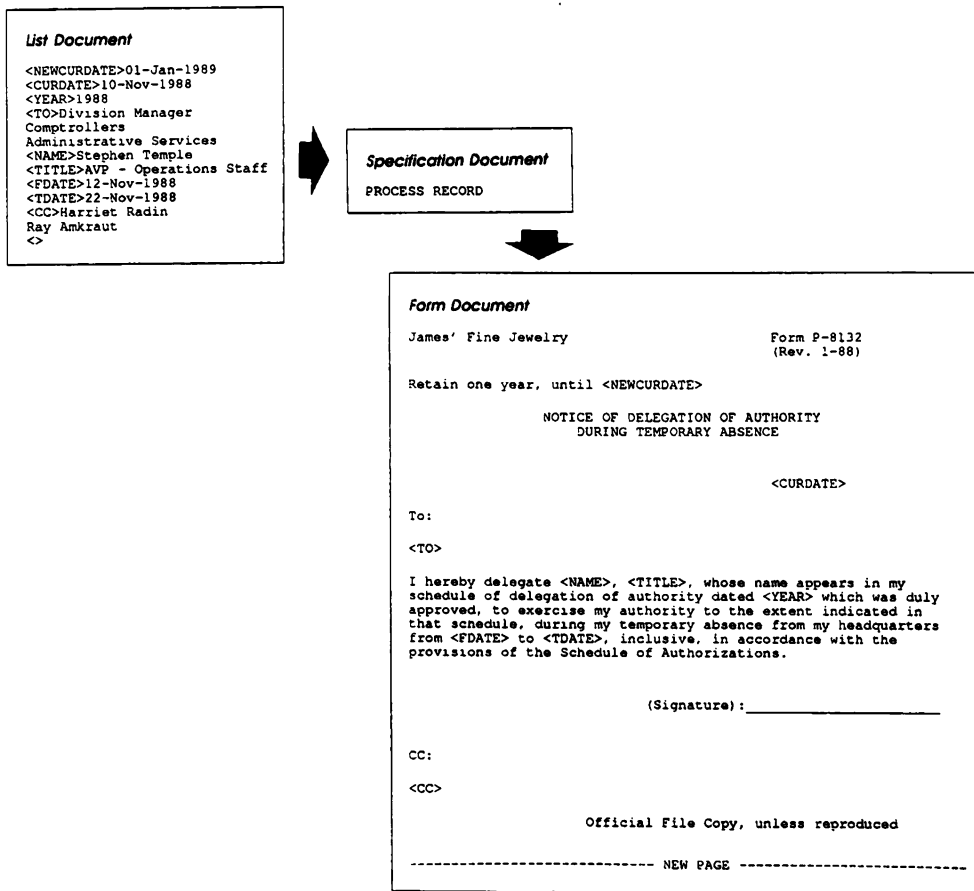


Figure 6.12 Delegation of Authority Notice Example

Output Document

James' Fine Jewelry

Form P-8132
(Rev. 1-88)

Retain one year, until 01-Jan-1989

**NOTICE OF DELEGATION OF AUTHORITY
DURING TEMPORARY ABSENCE**

10-Nov-1988

To:

Division Manager
Comptrollers
Administrative Services

I hereby delegate Stephen Temple, AVP - Operations Staff, whose name appears in my schedule of delegation of authority dated 1988 which was duly approved, to exercise my authority to the extent indicated in that schedule, during my temporary absence from my headquarters from 12-Nov-1988 to 22-Nov-1988, inclusive, in accordance with the provisions of the Schedule of Authorizations.

(Signature): _____

CC:

Harriet Radin
Ray Amkraut

Official File Copy, unless reproduced

The legal document in Figure 6.13 was given to us by the Worker's Compensation Court of the State of Oklahoma. As you can see, it took a lot of work to create. However, once you design the documents, you can use them over and over again.

```

List Document
----- START CONTROL -----
WPSMATH
FORMULA <:WKS> * <:T $ WK>           = <:TO T WK AMT> "99,999.99"
FORMULA <:T $ WK> / 6                 = <:T DA AMT> "99,999.99"
FORMULA <:DAS> * <:T DA AMT>          = <:TO T DA AMT> "99,999.99"
FORMULA <:TO T WK AMT> + <:TO T DA AMT> = <:TO AMT> "99,999.99"
FORMULA <:TO AMT> * .10               = <:ATY F> "99,999.99"
----- END CONTROL -----
<CL>MICHAEL LAWS
<CT NO.>63-1222A
<RE>LIVINGSTONE LEASING COMPANY
<SS#>122-12-3901
<I C>ANDERSEN ASSURANCE COMPANY
<DAY>10ch
<MO,YR>JULY, 1988
<HRG>JULY 13, 1988
<J>JOHN TEMPLE
<LO>OKLAHOMA CITY
<CL ATY>DONALD VEILLEUX
<AND>and insurance carrier
<RE ATY>DOROTHY HAMOS
<D/A>JANUARY 9, 1988
<PARTS BO>BACK
<:T $ WK>231.00
<:P $ WK>173.00
<T BE DA>APRIL 29, 1988
<:WKS>11
<:DAS>0
<300/150>150
<CR/T>CHT/RR
<>

```

Specification Document
PROCESS RECORD

Figure 6.13 A Legal Document Example

Form Document

BEFORE THE WORKERS' COMPENSATION COURT OF THE STATE OF OKLAHOMA

In re claim of:

<CL>	)	
	)	Claimant
	)	Court No. <CT NO.>
<RE>	)	
	)	Respondent
	)	Claimant's Social Security No.
	)	<SS#>
<I C>	)	
	)	Ins. Carrier

ORDER

Now on this <DAY> day of <MO,YR>, this cause comes on for consideration pursuant to regular assignment and hearing on <HRG>, before Judge <J>, at <LO>, Oklahoma, at which time claimant appeared and by counsel, <CL ATY> and respondent <AND> appeared by counsel, <RE ATY>.

The Court, having considered the evidence and records on file, and being well and fully advised in the premises FINDS AND ORDERS AS FOLLOWS:

- 1 -

THAT on <D/A>, claimant was employed by the above named respondent and such employment was subject to and covered by the provisions of the Workers' Compensation Act of the State of Oklahoma; and on said date claimant sustained an accidental personal injury to the <PARTS BO> arising out of and in the course of claimant's employment.

- 2 -

THAT at the time of said injury, claimant's wages were sufficient to establish the rates of compensation at \$<:T \$ WK> per week for temporary total disability compensation and \$<:P \$ WK> per week for permanent partial disability; as a result of said injury, claimant has been temporarily totally disabled from <T BE DA> and is still temporarily totally disabled and in need of further medical treatment, care and attention, and is entitled to compensations for such disability to be paid as follows: <COMP PD> Compensation is due at the rate of \$<T \$ WK> per week from <T BE DA> to DATE, a period of <:WKS> weeks and <:DAS> days in the amount of \$<:TO AMT>; and compensation shall continue for and during claimant's period of temporary total disability, not to exceed <300/150> weeks.

- 3 -

THAT respondent or insurance carrier shall furnish claimant with necessary medical treatment, care and attention for correction of claimant's condition brought about by said injury by a competent physician to be selected by claimant; and

respondent or insurance carrier shall pay to claimant the amount of compensation which has accrued to date, as shown above, and continue the payment of compensation to claimant at the rate of \$<:T \$ WK> per week for and during claimant's period of temporary total disability, not to exceed <300/150> weeks.

- 4 -

THAT determination of permanent disability, if any, sustained by claimant as a result of said injury is reserved for future hearing.

- 5 -

THAT claimant's attorney shall be paid the sum of \$<:ATY F> from the accrued portion of the award herein and every 10th weekly payment of \$<:T \$ WK> as a reasonable fee herein; within 20 days from the date of filing of this order, respondent or insurance carrier shall file herein proper receipt evidencing compliance with this order.

BY ORDER OF:

<CR/T>

<J>, JUDGE

CC:

<CL ATY>

<RE ATY>

----- NEW PAGE -----



Output Document

BEFORE THE WORKERS' COMPENSATION COURT OF THE STATE OF OKLAHOMA
In re claim of:

MICHAEL LAWS	)	
Claimant	)	
LIVINGSTONE LEASING COMPANY	)	Court No. 63-1222A
Respondent	)	Claimant's Social Security No.
ANDERSEN ASSURANCE COMPANY	)	122-12-3901
Ins. Carrier	)	

ORDER

Now on this 10th day of JULY, 1988, this cause comes on for consideration pursuant to regular assignment and hearing on JULY 13, 1988, before Judge JOHN TEMPLE, at OKLAHOMA CITY, Oklahoma, at which time claimant appeared and by counsel, DONALD VEILLEUX and respondent and insurance carrier appeared by counsel, DOROTHY MAMOS.

The Court, having considered the evidence and records on file, and being well and fully advised in the premises FINDS AND ORDERS AS FOLLOWS:

- 1 -

THAT on JANUARY 9, 1988, claimant was employed by the above named respondent and such employment was subject to and covered by the provisions of the Workers' Compensation Act of the State of Oklahoma; and on said date claimant sustained an accidental personal injury to the BACK arising out of and in the course of claimant's employment.

- 2 -

THAT at the time of said injury, claimant's wages were sufficient to establish the rates of compensation at \$231.00 per

Figure 6.13 A Legal Document Example (Continued)

week for temporary total disability compensation and \$173.00 per week for permanent partial disability; as a result of said injury, claimant has been temporarily totally disabled from APRIL 29, 1988; and is still temporarily totally disabled and in need of further medical treatment, care and attention, and is entitled to compensations for such disability to be paid as follows: Compensation is due at the rate of \$ per week from APRIL 29, 1988 to DATE, a period of 11 weeks and 0 days in the amount of \$2,541.00; and compensation shall continue for and during claimant's period of temporary total disability, not to exceed 150 weeks.

- 3 -

THAT respondent or insurance carrier shall furnish claimant with necessary medical treatment, care and attention for correction of claimant's condition brought about by said injury by a competent physician to be selected by claimant; and respondent or insurance carrier shall pay to claimant the amount of compensation which has accrued to date, as shown above, and continue the payment of compensation to claimant at the rate of \$231.00 per week for and during claimant's period of temporary total disability, not to exceed 150 weeks.

- 4 -

THAT determination of permanent disability, if any, sustained by claimant as a result of said injury is reserved for future hearing.

- 5 -

THAT claimant's attorney shall be paid the sum of \$254.10 from the accrued portion of the award herein and every 10th weekly payment of \$231.00 as a reasonable fee herein; within 20 days from the date of filing of this order, respondent or insurance carrier shall file herein proper receipt evidencing compliance with this order.

BY ORDER OF:

CHT/RR

JOHN TEMPLE, JUDGE

CC:

DONALD VEILLEUX
DOROTHY MANOS

6.5.9 Material Safety Data Sheet

The material safety data form in Figure 6.14 can be used if you ship hazardous materials to customers.

List Document

<MNAME>Genovese Paint, LTD.
<MADDRESS>3-21-8, Kyoto-Lini
<MADDRESS1>Minatoku, Tokyo, 1201 Japan
<SNAME>Tech Scientific Corporation
<SADDRESS>121 Elm Street
<SADDRESS1>Littleton, MA 01222-2010
<EM PH#>(617) 866-0226
<PROD NAME>TONER-FIX-IT KIT
<TRADE NAME>Toner
<PARTNO>LN03X-UI
<DATA PRE>02-Aug-1988
<ING1>Ferrosoferric oxide
<I1>55
<TLV1>N/L
<CAS1>1317-61-9
<ING2>Styrene acrylic resin
<I2>45
<TLV2>N/L
<CAS2>25213-39-2
<SOFT RANGE>130 - 160 C (226 - 320F)
<SOLUBLE>Insoluble
<GRAVITY>1.99 (water = 1)
<VOLATILE>None
<APPEARANCE>Black powder, no odor
<>

Specification Document
PROCESS RECORD

Form Document
MATERIAL SAFETY DATA SHEET

SECTION I - ADMINISTRATIVE INFORMATION

Manufacturer's Name: <MNAME>
Address: <MADDRESS>
<MADDRESS1>

Supplier's Name: <SNAME>
Address: <SADDRESS>
<SADDRESS1>

Emergency Phone Number: <EM PH#>

Product Name: <PROD NAME>
Trade Name: <TRADE NAME>
Product Part Number: <PARTNO>

Date Prepared: 02-Aug-1988

SECTION II - HAZARDOUS INGREDIENTS

Ingredients	Percentage	TLV	CAS
<ING1>	<I1>	<TLV1>	<CAS1>
<ING2>	<I2>	<TLV2>	<CAS2>

SECTION III - PHYSICAL CHARACTERISTICS

Softening Range	<SOFT RANGE>
Solubility in water	<SOLUBLE>
Specific gravity	<GRAVITY>
Percent volatile	<VOLATILE>
Appearance/odor	<APPEARANCE>

Figure 6.14 Material Safety Data Sheet Example

Output Document

MATERIAL SAFETY DATA SHEET

SECTION I - ADMINISTRATIVE INFORMATION

Manufacturer's Name: Genovese Paint, LTD.
Address: 3-21-8, Kyoto-Lini
Minatoku, Tokyo, 1201 Japan

Supplier's Name: Tech Scientific Corporation
Address: 121 Elm Street
Littleton, MA 01222-2010
Emergency Phone Number: (617) 866-0226

Product Name: TONER-FIX-IT KIT
Trade Name: Toner
Product Part Number: LN03X-UI

Date Prepared: 02-Aug-1988

SECTION II - HAZARDOUS INGREDIENTS

Ingredients	Percentage	TLV	CAS
Ferrosoferric oxide	55	N/L	1317-61-9
Styrene acrylic resin	45	N/L	25213-39-2

SECTION III - PHYSICAL CHARACTERISTICS

Softening Range	130 - 160 C (226 - 320F)
Solubility in water	Insoluble
Specific gravity	1.99 (water = 1)
Percent volatile	None
Appearance/odor	Black powder, no odor

6.6 ***Tables***

Tables are an excellent way of displaying detailed material. Information displayed in table format is eye-catching, to the point, and easy to read.

In the next example, we'll create a course database and process the records through list processing to produce the output in table format.

Before you begin to enter information for the table, you should have an idea of how you want the final table to look. Decide how many spaces you want for each column and whether or not you want to print headers or footers. You may want to put some information either before or after the body list. In our example (Figure 6.15), a title and column headings precede the body list, and information is displayed after the list.

6.6.1 ***Creating a Table***

We'll create a table describing the courses offered at one of Digital Equipment Corporation's training centers. Figure 6.15 illustrates the documents.

In the list document, we made the <:COST> field a numeric field to calculate the charges and bill the proper cost centers. We made the date a numeric field and entered it as 092088, to be able to sort the list by date at another time.

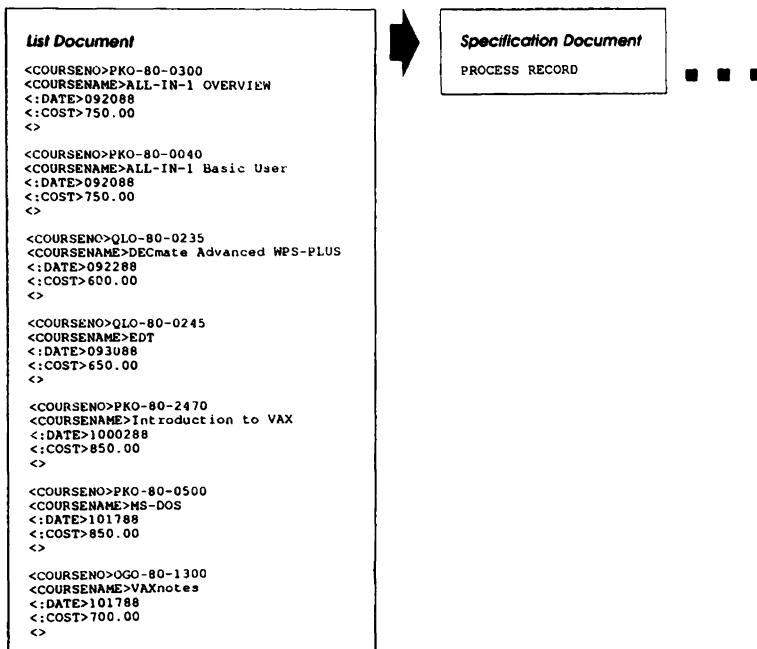


Figure 6.15 *Creating a Table*

Form Document

**COURSE LIST
for Internal Courses**

<u>Course Number</u>	<u>Course Name</u>	<u>Cost</u>	<u>Date</u>
<!S> <COURSENO>	<COURSENAME>	<:COST>	<:DATE><!E>

To request custom course development, contact Office Applications Course Development by sending an inquiry to OA Course Development at CF01-2/A2; or call DTN 222-1234.

Output Document

**COURSE LIST
for Internal Courses**

<u>Course Number</u>	<u>Course Name</u>	<u>Cost</u>	<u>Date</u>
PKO-80-0030	ALL-IN-1 OVERVIEW	750.00	092088
PKO-80-0040	ALL-IN-1 Basic User	750.00	092088
QLO-80-0235	DECmate Advanced WPS	600.00	092288
QLO-80-0245	EDT	650.00	093088
PKO-80-2470	Intro to VAX/VMS	850.00	100288
PKO-80-0500	MS-DOS	850.00	101788
OGO-80-1300	VAXnotes	700.00	101788

To request custom course development, contact Office Applications Course Development by sending an inquiry to OA Course Development at CF01-2/A2; or call DTN 222-1234.

Figure 6.15 Creating a Table (Continued)

In the form document of Figure 6.15, the command `<!S>` marks the start of the repetitive area. Text before the `<!S>` in the form document is produced before the list begins to process.

The command `<!E>` marks the end of the repetitive area. Text after the `<!E>` in the form document is produced after the list processes.

A form document can have only one `<!S>` and one `<!E>`. The `<!S>` command must precede the `<!E>` command.



Don't enter any blank lines between the `<!S>` and the `<COURSENO>` field or between `<DATE>` and the `<!E>`. If you do, WPS-PLUS will put blank lines between each record of your document.

So that a table is easier to read, WPS-PLUS lets you control the spacing of the output document. If you have a long list, you may want to print three records, then a blank line, three more records, and so on.

The documents in Figure 6.16 illustrate the steps to produce a table with spacing. The number of records in the list document is not a multiple of three, so this form prints two extra blank lines when it runs out of records.

The double angle bracket tells WPS-PLUS to advance to the next record. The <!E> returns WPS-PLUS to the <!S> at the top of the document when there are still more records to process.

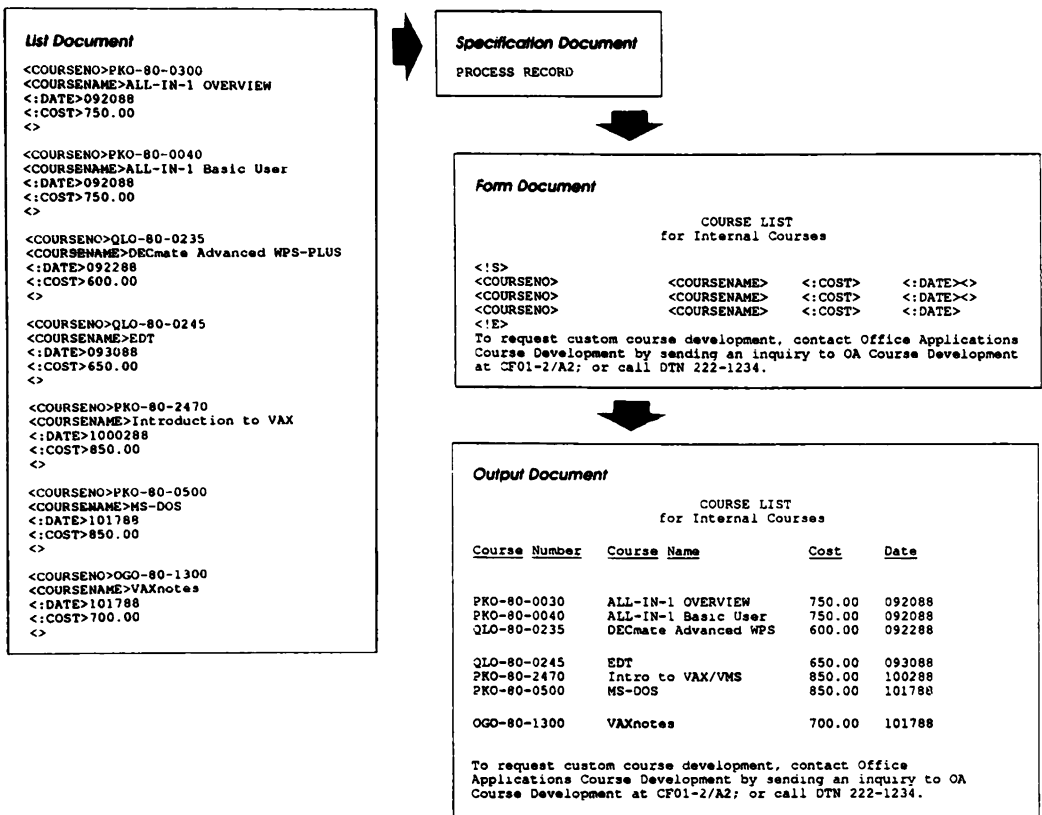


Figure 6.16 Controlling Table Spacing

List processing math works as part of the list processing feature. You need the same documents: a list document, a list specification document, and a form document to create the output document.

To use list processing math, you need some knowledge of both editor math and list processing.

List processing math performs calculations from the information in list documents, and editor math operates only on numbers it finds inside Editor Math areas.



Put control blocks in your list document to add comments or information to help others using your files. Here's an example of the correct way to enter a comment:

```
----- START CONTROL -----
COMMENT

Complete this list processing document at the end of every month.
Send a copy of the output document to personnel. Make sure you
enter RETURN after the <ADDRESS> field.
----- END CONTROL -----
```

The differences between editor math and list processing math are summarized in Table 6.1.

Table 6.1 Editor Math and List Processing Math Differences

Editor Math	List Processing Math
Uses BEGIN, END and TOTAL commands.	Does not use BEGIN, END or TOTAL commands.
Requires rulers with decimal tab positions.	Does not require special rulers.
Gets information from decimal-aligned tab positions.	Gets information from list records.
Uses all equations on every line of the table.	Uses all equations on every record of the list.
Control blocks usually display at the top of the table.	Control blocks usually display at the beginning of the document.
Answers display in the table.	Answers display in the output document.
Reworks calculations whenever you scroll through the table.	Reworks calculations when you run list processing with the list document.

For this example, we retrieve the student database we used in Figure 6.6. We add the control block to the top of the list document, and we add three additional fields: <:MIDTERM>, <:TERMPAPER>, and <:FINAL>. As illustrated in Figure 6.17, to compute the field <:FINALGRADE>, the average of all the grades, we add the grades from the midterm exam, the term paper, and the final exam. Then we divide these grades by 3 to compute the final grade.

We use two formulas in the control block, one formula to total the grades and the other to divide the total grades by 3 to get the average grade.

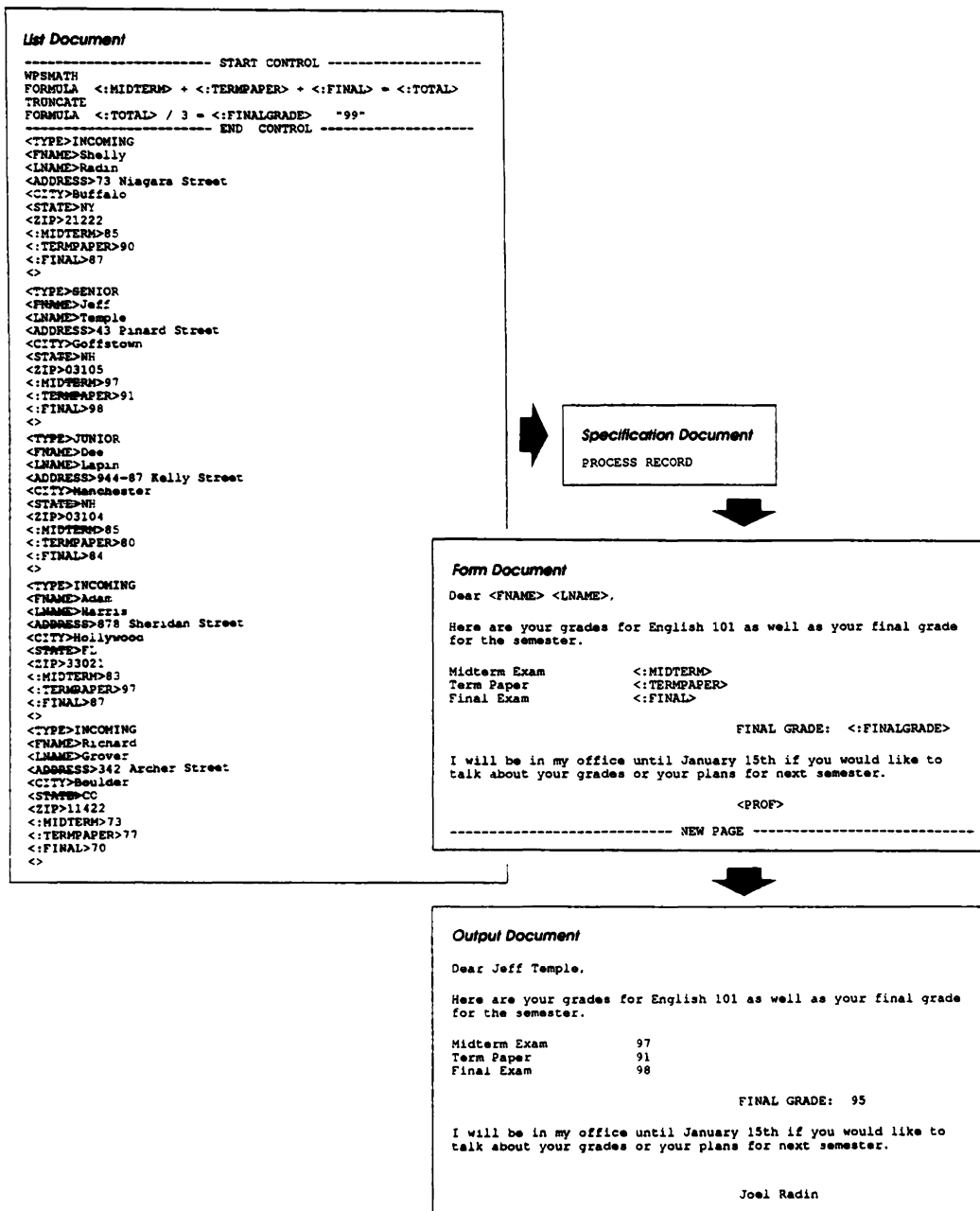


Figure 6.17 Computing Averages — Student Grades Example

6.8.2

Creating a Letter For the Administration Department

You can also use the database of Figure 6.6 to create another list for the administration department containing just the student name and final grade. Figure 6.18 illustrates the documents for such a letter.



If you already have a list document and you would like to use math list processing to perform some calculations, merely do a global search and replace to change the nonnumeric field (< >) to the numeric field (<: >).

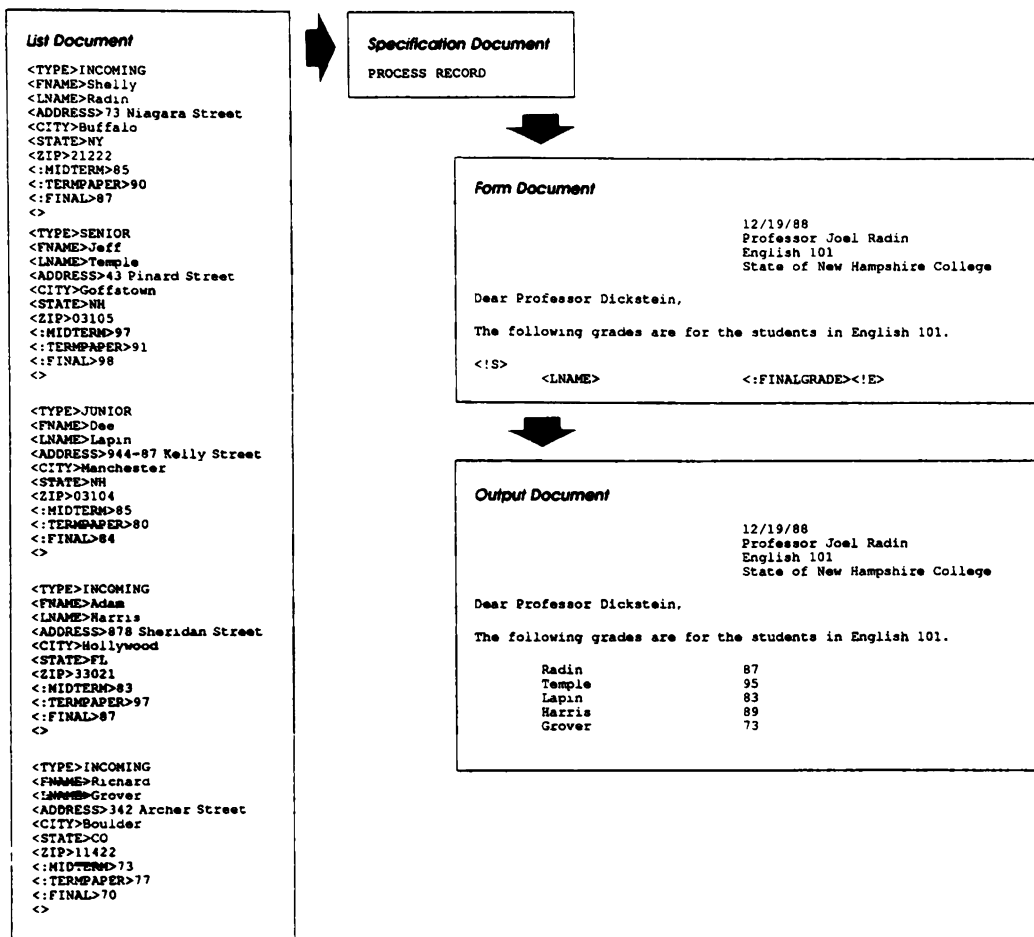


Figure 6.18 Creating an Administration Department Letter — Student Grades Example

6.8.3 Tracking Vacation Hours

You can use list processing math to track vacation hours for each employee, both hours taken and hours remaining. WPS-PLUS calculates the hours using the following formula:

Total hours available - Hours taken = Hours left

You can add a comment control block in the list document to describe field definitions and processing procedures. Figure 6.19 illustrates the documents for tracking vacation hours.

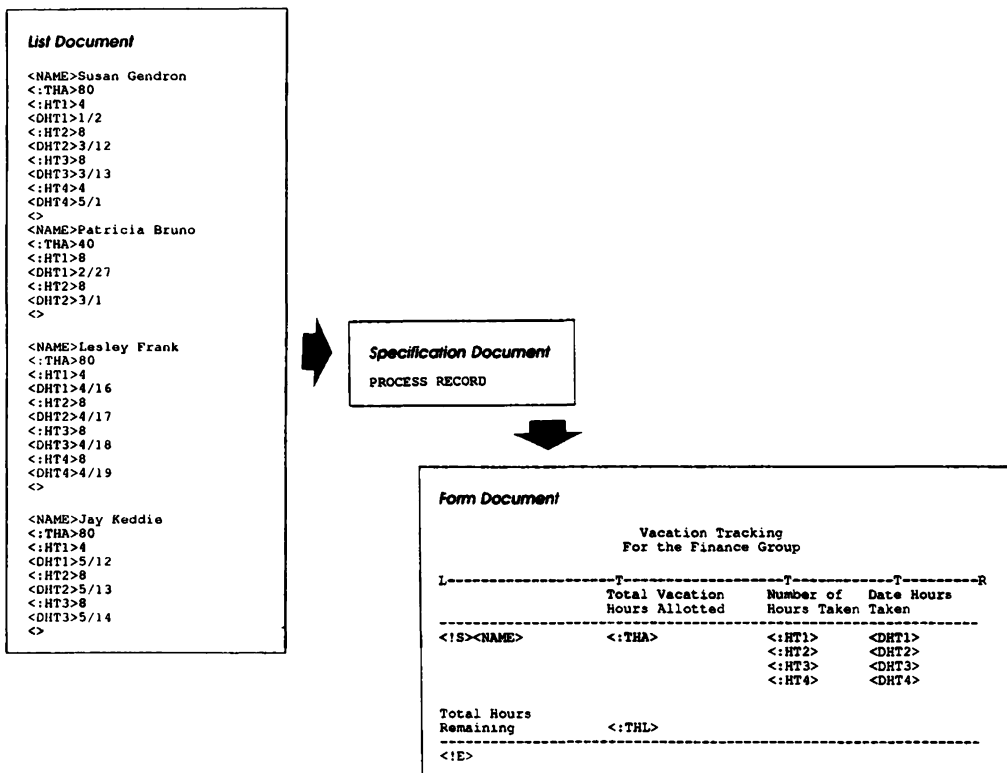


Figure 6.19 Tracking Vacation Hours Example

Output Document

Vacation Tracking For the Finance Group

	Total Vacation Hours Allotted	Number of Hours Taken	Date Hours Taken
Susan Gendron	80	4	1/2
		8	3/12
		8	3/13
		4	5/1
Total Hours Remaining	56		
Patricia Bruno	40	8	2/27
		8	3/1
Total Hours Remaining	24		
Lesley Frank	80	4	4/16
		8	4/17
		8	4/18
		8	4/19
Total Hours Remaining	52		
Jay Keddle	80	4	5/12
		8	5/13
		8	5/14
Total Hours Remaining	60		

START CONTROL

COMMENT

This is a list of all employees in the Finance Department, their total allotted vacation leave hours, the number of hours of vacation leave taken, and remaining vacation hours.

The fields allocated are:

<:THA> Total Hours Available
<:HT#> Hours Taken
<:DHT#> Date Hours Taken
<:THL> Total Hours Left

This list should be updated as employees use their vacation hours. Send a copy of this report to each employee each month.

END CONTROL

START CONTROL

WPSMATH

FORMULA <:THA> - <:HT1> - <:HT2> - <:HT3> - <:HT4> = <:THL>

END CONTROL

Sort processing arranges your output document in ascending or descending order. You can, for example, sort a mailing list by state so that records for Alabama come first, followed by records for Alaska, Arizona, Arkansas, and so on. Or you can sort the same mailing list by state and city so that records for Allentown, Pennsylvania, are grouped together, followed by records for Altoona, Pennsylvania, followed by those for Bethlehem, Pennsylvania, and so on. You can sort records in ascending alphabetic/numeric order or in descending alphabetic/numeric order.

To use sort processing, you need two documents: the list document containing the records to sort, and the sort specification document specifying the order in which to sort the records. When you run sort processing, you produce an output document containing the sorted records.



Teachers can use the sorting feature very practically during examination time. After you type and print a test of numbered questions, change the numbers, then do an ascending and descending sort. Print a copy of the test in that new order.

Duplicate both versions of the test, and distribute them alternately. Now a student who attempts to read his neighbor's answers will be unpleasantly surprised.

6.9.1

Sorting Test Questions

We can use sort processing for the example test questions shown in Figure 6.20. We'll sort the test questions according to questions with the highest number first and print a copy. We could then change the numbers and print another copy.

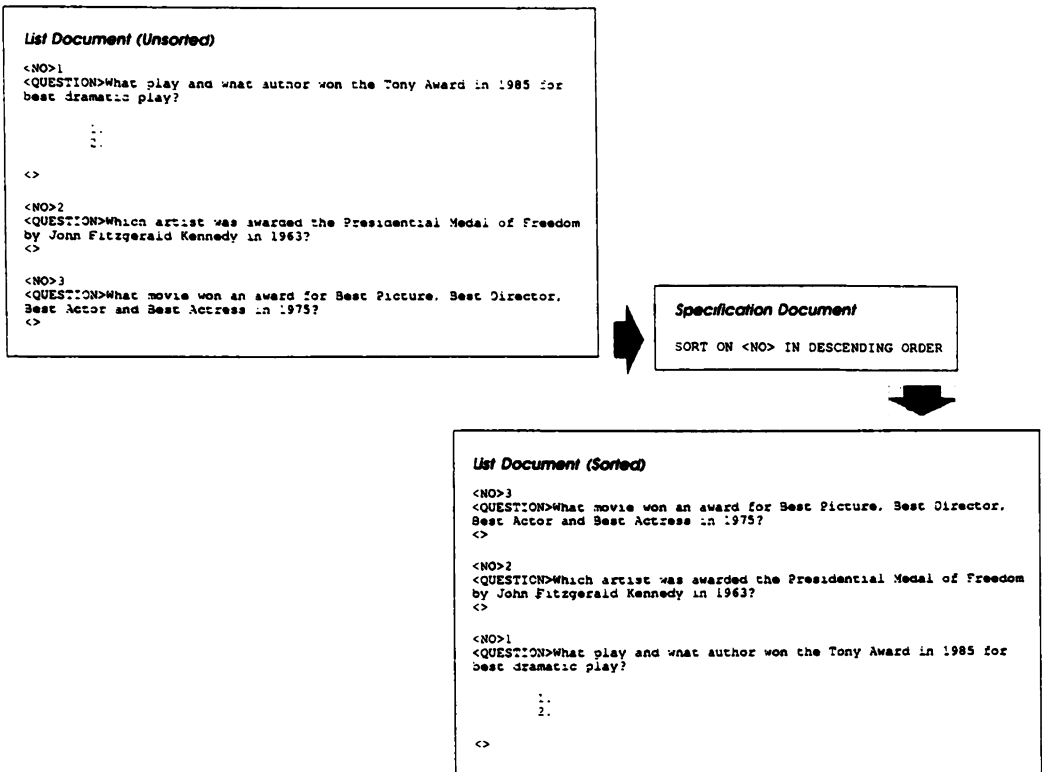


Figure 6.20 Sort Processing: Test Questions Example

In Figure 6.21 we use our student database again and sort all students according to social security number.

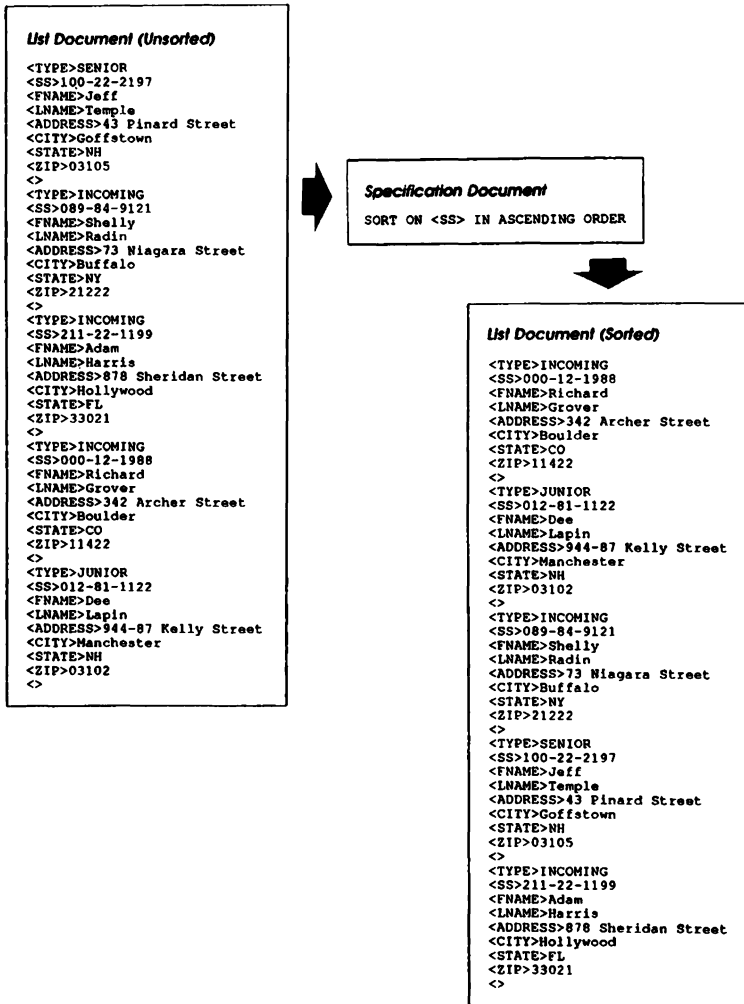


Figure 6.21 Sort Processing: Social Security Numbers Example

Chapter 7

Deleting and Moving Columns

The WPS–PLUS feature for deleting and moving columns allows you to rearrange tables and columns within a document to give them a new look. By using this feature, you can do the following:

- Delete a column and move another column into its place.
- Delete a column and leave the other columns as they were.
- Delete portions of a column.
- Move a column into another area.

You can copy and move only those columns that were created with the **TAB** key; you cannot use the column cut-and-paste option with columns created with the space bar or multicolumn control blocks. See Chapter 3 for ways to rearrange text by using control blocks.

7.1 *Deleting Columns*

For the next few examples, we will use the sample course list we created in Chapter 6, Figure 6.22. This list is repeated here in Figure 7.1.

<u>Course Number</u>	<u>Course Name</u>	<u>Cost</u>	<u>Date</u>
PKO-80-0030	ALL-IN-1 OVERVIEW	750.00	092088
PKO-80-0040	ALL-IN-1 Basic User	750.00	092088
QLO-80-0235	DECmate Advanced WPS	600.00	092288
QLO-80-0245	EDT	650.00	093088
PKO-80-2470	Intro to VAX/VMS	850.00	100288
PKO-80-0500	MS-DOS	850.00	101788
OGO-80-1300	VAXnotes	700.00	101788

Figure 7.1 Course List Practice Document

7.1.1 **Replacing One Column with Another**

Using the list in Figure 7.1, let's delete the Course Name column and move the Cost and Date columns to the left, as shown in Figure 7.2.

Follow these steps to make Cost the new second column and Date the new third column:

Step 1

Place the cursor on the C in Course Name, and press the **SEL** key.

Step 2

Place the cursor anywhere on the last line of that column, and press **GOLD TAB POS**.

Step 3

Press the **CUT** key. **WPS-PLUS** deletes the column Course Name from the document. The Cost column and the Date column shift to the left and become the second and third columns.

<u>Course Number</u>	<u>Cost</u>	<u>Date</u>
PKO-80-0030	750.00	092088
PKO-80-0040	750.00	092088
QLO-80-0235	600.00	092288
QLO-80-0245	650.00	093088
PKO-80-2470	850.00	100288
PKO-80-0500	850.00	101788
OGO-80-1300	700.00	101788

Figure 7.2 Replacing One Column with Another

You can also adjust the ruler settings to more evenly space the columns across the page.



Don't place rulers within columns. Insert them only at the top of your document.

7.1.2

Deleting a Column and Leaving the Others in Place

We will use the course practice document again (shown in Figure 7.1) to try another example. We'll remove the Course Name column and keep the Cost and Date columns in place. Figure 7.3 shows the resulting document.

Follow these steps to delete the Course Name column and leave the other columns in place:

Step 1

Place the cursor at the C in Course Name and press the SEL key.

Step 2

Place the cursor anywhere on the last line in the column to remove that column. In this example, place the cursor at the V in VAXnotes; you can also place the cursor on the "A" or the "e" in VAXnotes. Now, press **GOLD TAB POS** on the numeric keypad.

<u>Course Number</u>	<u>Cost</u>	<u>Date</u>
PKO-80-0030	750.00	092088
PKO-80-0040	750.00	092088
QLO-80-0235	600.00	092288
QLO-80-0245	650.00	093088
PKO-80-2470	850.00	100288
PKO-80-0500	850.00	101788
OGO-80-1300	700.00	101788

Figure 7.3 *Deleting a Column and Leaving the Others in Place*

Step 3

Press the **DEL CHAR** key. The Course Name column is removed, but the third column, Cost, and the fourth column, Date, remain in place.

7.1.3 Deleting Portions of a Column

There may be times when you wish to delete just a portion of a column. For example, you might want to delete the three identifying characters to the left of the Course Number field and leave just the numbers, or you might want to delete the numbers to the right of the field and leave just the three identifying characters.

We begin with the original document once again, shown in Figure 7.1. We'll delete a portion of the Course Number field. Figure 7.4 shows the resulting list.

Follow these steps to delete the three identifying letters to the left of the Course Number field:

Step 1

Move the cursor to the start of the partial column that will remain in your document. In this example, we moved the cursor to the 8 in the Course Number field PKO-80-0030 because we wanted to remove PKO-.

Step 2

Press the **SEL** key and move the cursor to the end of the same column. In this example, we moved it to the 8 in the field OGO-80-1300.

<u>Course Number</u>	<u>Course Name</u>	<u>Cost</u>	<u>Date</u>
80-0030	ALL-IN-1 OVERVIEW	750.00	092088
80-0040	ALL-IN-1 Basic User	750.00	092088
80-0235	DECmate Advanced WPS	600.00	092288
80-0245	EDT	650.00	093088
80-2470	Intro to VAX/VMS	850.00	100288
80-0500	MS-DOS	850.00	101788
80-1300	VAXnotes	700.00	101788

Figure 7.4 Deleting the Left Portion of a Column

Step 3

Press **GOLD TAB POS** on the numeric keypad, and press the **RUB CHAR** key. The **RUB CHAR** key appears on some keyboards as **WORD CHAR** above the **RETURN** key. The partial column to the left is removed, and the rest of the column shifts to left.

We can also delete the right portion of a column to obtain the results shown in Figure 7.5.

Follow these steps to delete the eight characters (six numeric characters plus two dashes) from the right of the Course Number field:

Step 1

Move the cursor to the start of the partial column that you want to delete. In this example, we moved it to the first dash in the Course Number field PKO-80-0030 because we wanted to remove -80-0030.

Step 2

Press the **SEL** key and move the cursor to the end of the same column. In this example, we moved it to the dash in the field OGO-80-1300.

Step 3

Press **GOLD TAB POS** and **DEL CHAR** on the numeric keypad. The partial column to the right is deleted and placed in the paste area. The Course Number field now appears without the numbers.

<u>Course Number</u>	<u>Course Name</u>	<u>Cost</u>	<u>Date</u>
PKO	ALL-IN-1 OVERVIEW	750.00	092088
PKO	ALL-IN-1 Basic User	750.00	092088
QLO	DECmate Advanced WPS	600.00	092288
QLO	EDT	650.00	093088
PKO	Intro to VAX/VMS	850.00	100288
PKO	MS-DOS	850.00	101788
OGO	VAXnotes	700.00	101788

Figure 7.5 *Deleting the Right Portion of a Column*



Once you delete a partial column, you cannot paste it back in its original position. However, as long as the partial column is stored in the paste area, you can paste it elsewhere in your document.

7.2 *Moving Columns*

We'll retrieve the original course list once again for this example. To copy the Course Number column and move it into another document, follow these steps:

Step 1

Position the cursor at the P in PKO-80-0030 and press the **SEL** key.

Step 2

Position the cursor anywhere on the line OGO-80-1300 and press **GOLD TAB POS**.

Step 3

Press **GOLD CUT**. The Course Number column is copied into an area of WPS-PLUS called the paste buffer, but it's still in your original document. Press **GOLD F** to file your document.

Step 4

Edit the document in which the column is to be pasted. Position your cursor at the specific **TAB** position where the column is to be pasted, and press **GOLD TAB POS** and then **PASTE**. The column is now pasted in the new document.

7.2.1 *Pasting One Column Over Another*

You can also paste a column over another column. For example, you may want to delete the Date column and paste it over the Cost column, as shown in Figure 7.6. Follow these steps to paste one column over another:

<u>Course Number</u>	<u>Course Name</u>	<u>Date</u>
PKO-80-0030	ALL-IN-1 OVERVIEW	092088
PKO-80-0040	ALL-IN-1 Basic User	092088
QLO-80-0235	DECmate Advanced WPS	092288
QLO-80-0245	EDT	093088
PKO-80-2470	Intro to VAX/VMS	100288
PKO-80-0500	MS-DOS	101788
OGO-80-1300	VAXnotes	101788

Figure 7.6 Pasting Date Column Over Cost Column

Step 1

Position the cursor on the D in the Date column and press the **SEL** key on the numeric keypad.

Step 2

Position the cursor anywhere on the last line in the Date column and press **GOLD TAB POS** and then the **CUT** key.

Step 3

Position the cursor on the C in the Cost column and press **GOLD TAB POS** and then **GOLD PASTE**. The Cost column disappears and is replaced by the Date column.

Chapter 8

Drawing Diagrams Using WPS-PLUS

WPS-PLUS comes with a drawing tool called the Two-Dimensional Editor (TDE). When you use the TDE, you can create diagrams ranging from simple boxes to more complicated drawings like organization charts, bar graphs, and business forms. You can even create a family tree like the one in Figure 8.1.

You can shade text by using various characters, and you can move, copy, or overlay any part of your diagram on another diagram or insert it into another area of your document.

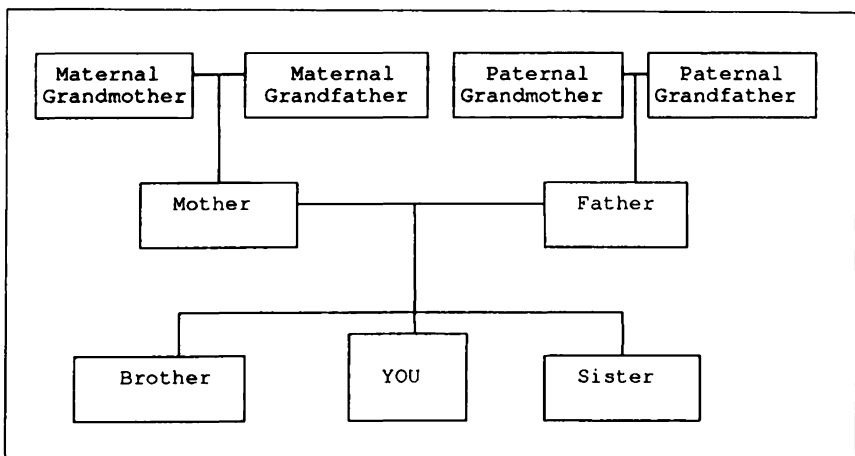


Figure 8.1 Family Tree Created with TDE

Diagrams are created within a picture frame that can be up to 132 columns wide and 22 lines long. You can extend your diagram to be longer than 22 lines by creating a second or a third screen, thereby making your diagram as long as you like. The TDE uses all three keypads: the main keypad, the numeric keypad, and the arrow keypad.

8.1 *Fundamentals of TDE*

As in any WPS-PLUS editing session, the cursor must be in the correct position before anything is entered into a diagram. Table 8.1 lists the cursor movement keys. The cursor remains in the picture frame area until the frame is closed. Figure 8.2 shows the keyboard layout for the TDE.

Table 8.1 *Cursor Movement Keys*

Press	To Move the Cursor
ARROW KEYS	One character space: LEFT, RIGHT, UP, DOWN
GOLD TAB	To the right edge of the screen
GOLD BACKSPACE	To the left edge of the screen
TAB	To the next tab position
GOLD TOP DOCMT	To the top left corner of the screen
GOLD BOT DOCMT	To the bottom right corner of the screen
RETURN	Down one line, positioning it at the left edge of the screen
BACKUP	One space to the left
ADVANCE	One space to the right
LINE	One line up or down, depending on which directional key was pressed

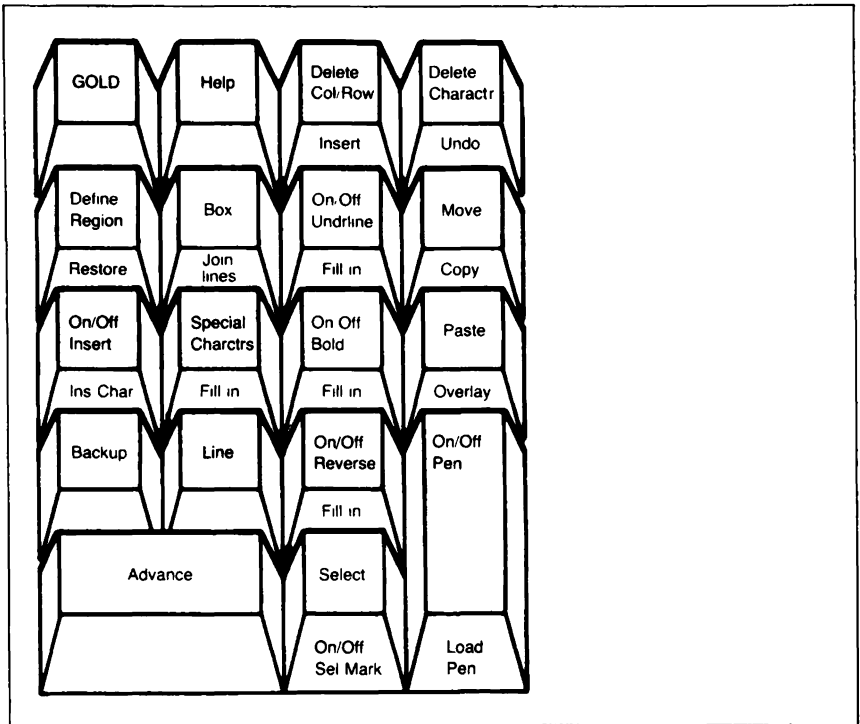


Figure 8.2 Two-Dimensional Editor Keyboard Layout

8.2

Creating a Bar Chart with TDE

The following subsections describe individual functions of the WPS-PLUS TDE. By following the procedures discussed, we'll create a bar chart. We'll start with a rectangle; then, we'll draw the bars and adjust the bar size; then, we'll add some text; and finally, we'll shade the bar chart. The completed bar chart is shown in Figure 8.3.

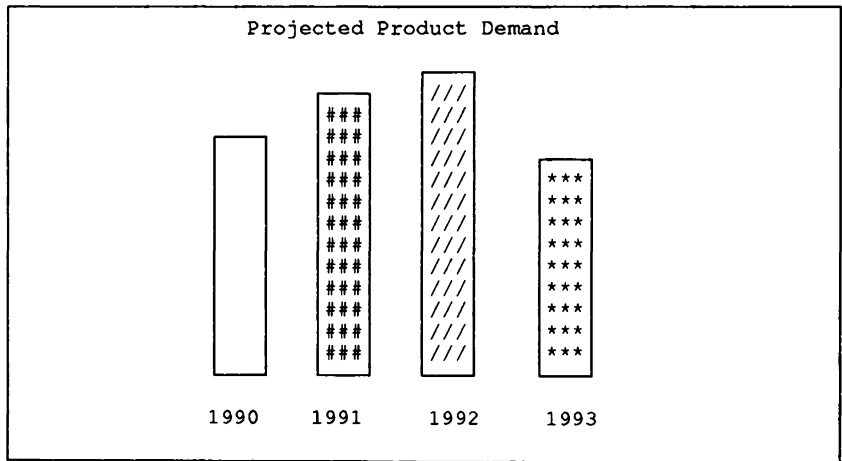


Figure 8.3 A Bar Chart Output Document

8.2.1

Drawing a Rectangle

Follow these steps to draw the rectangle that is the first bar of a bar chart:

Step 1

Create a new document and press **GOLD I** (Change Editor). WPS-PLUS inserts **START PICTURE** and **END PICTURE** markers at the cursor position:

```
----- START PICTURE -----  
----- END   PICTURE -----
```

Step 2

Press **GOLD I** (Change Editor) again to open the picture and clear the screen. The only item displayed is the status line at the bottom of your screen. You are now in the picture area and ready to begin to draw.

Step 3

Press the **DOWN ARROW** key five times and the **TAB** key twice to provide enough free space to draw the box.

Step 4

Press the **SEL** key to begin the drawing. The select mark displays on your screen as a highlighted box at the area where the rectangle will begin. Press the **DOWN ARROW** key 10 times and the **RIGHT ARROW** key 3 times.

Step 5

Press the **TAB POS** key on the numeric keypad. The TDE draws a box within the selected area and removes the select mark.

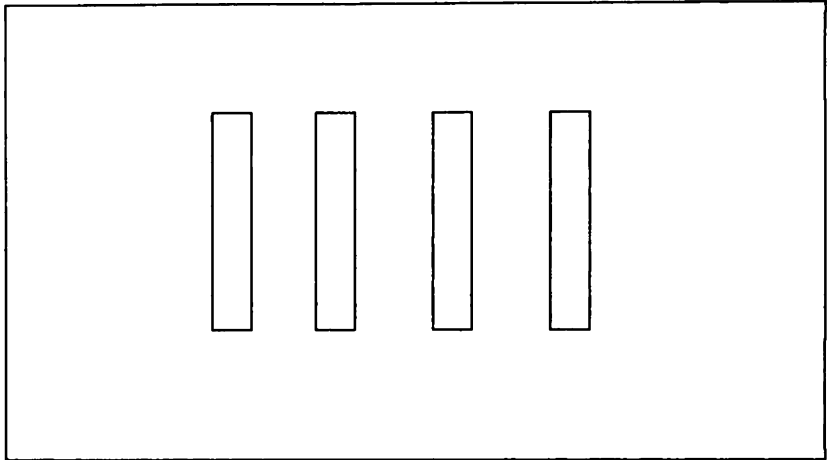


Figure 8.4 *Equal-Sized Rectangles for a Bar Chart*

8.2.2 ***Copying the Bar***

Follow these steps to copy the bar three times to create the beginnings of a bar chart, as shown in Figure 8.4:

Step 1

Move the cursor to the upper left corner of the rectangle and press the **SEL** key. Move the cursor to the bottom right corner of the rectangle and press **GOLD CUT**. A message displays on the bottom of your screen telling you that the selected area has been copied. The rectangle is now stored in the paste buffer.

Step 2

Move the cursor over five spaces from the top right corner of the first rectangle and press the **PASTE** key. A copy of the rectangle displays on your screen.

Step 3

Move the cursor over five spaces from the top right corner of the second rectangle and press the **PASTE** key. Now, you have three rectangles on your screen. Paste one more rectangle on the screen to give you a total of four.

You now have the beginnings of a bar chart.



Instead of counting the number of spaces to move the cursor, press the **GOLD** key and enter the number of spaces the cursor is to move (for example, 5, or 20, or 30) on your main keyboard. Press the **RIGHT ARROW** key and the cursor automatically moves to screen position 5 (or 20, or 30). Use the **DOWN ARROW** key to move the cursor down, the **UP ARROW** key to move the cursor up, and the **LEFT ARROW** key to move the cursor to the left.

8.2.3 *Adjusting the Bar Size*

You probably don't want all the bars to be the same size. To change the size of the second bar, place the cursor on the right corner of the second bar and press the **WORD CHAR** key four times. The top line of the bar is now deleted.

Step 1

Turn on the TDE pen by pressing the **ENTER** key. The word **Pen** now displays in boldface type.

Step 2

Press the **UP ARROW** key twice to extend the size of the left line, press the **RIGHT ARROW** key three times to draw the top line, and press the **DOWN ARROW** key twice to draw the right line. You have now changed the size of the bar.

Step 3

Press the **ENTER** key again to turn off the pen.

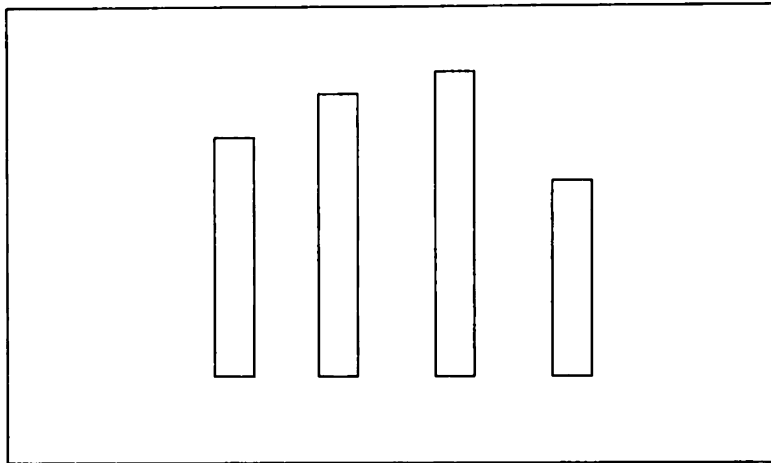


Figure 8.5 *Different-Sized Bars for a Bar Chart*

Experiment with changing the sizes of the other bars on the bar chart to create bars like those in Figure 8.5.

8.2.4 ***Adding Text to the Bar Chart***

Follow these steps to add text to the bar chart:

Step 1

To change the direction of the cursor, move the cursor to the third space in the first rectangle and press the **GOLD DOWN ARROW** key. The arrow key next to the word Auto on the status line indicates Auto-v (autodirection=down). As you type, the text moves down the screen.

Step 2

Enter the letters **S**, **A**, **L**, **E**, and **S** to print the word down the screen, beside the first bar.

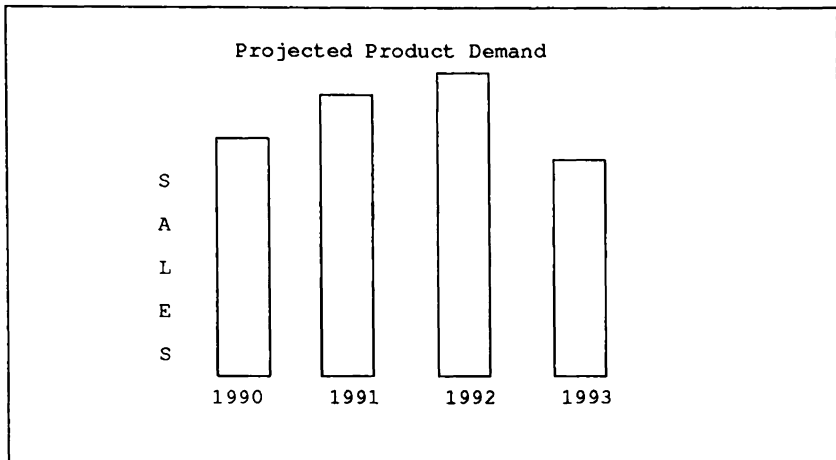


Figure 8.6 Bar Chart with Vertical and Horizontal Text

Step 3

Change the autodirection to read Auto-> by pressing **GOLD RIGHT ARROW**. Enter the words **Projected Product Demand**, which will print across the top of the bar chart. Then type the years **1990**, **1991**, **1992**, and **1993** under the bars as shown in Figure 8.6.

8.2.5 Shading the Bar Chart

Experiment with different shading techniques. Press the **GOLD** key along with different keys on the keyboard to produce different shadings.

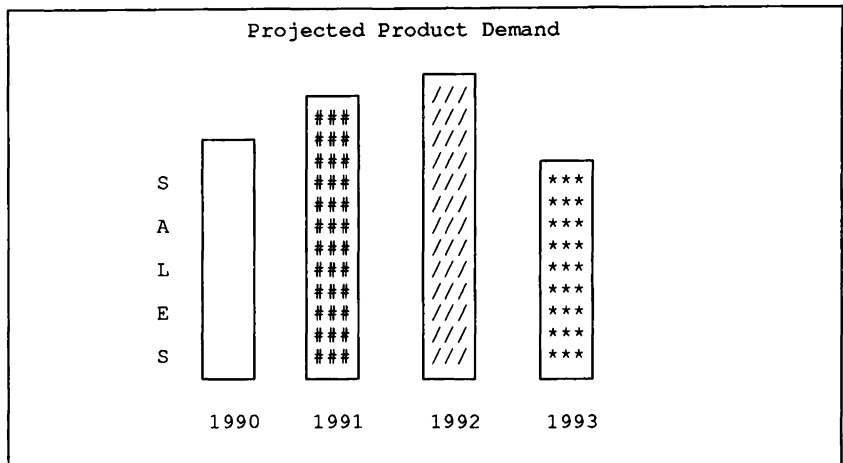


Figure 8.7 Bar Chart with Shaded Bars

Follow these steps to shade the bar chart the way it is shaded in Figure 8.7:

Step 1

Move the cursor to the top left corner of the second rectangle and press the **SEL** key.

Step 2

Move the cursor to the bottom right of the second rectangle and press the **GOLD PARA** key. Press the number sign (#) to shade the bar.

Step 3

Move the cursor to the top left corner of the third rectangle and press the **SEL** key. Move the cursor to the bottom right of the third rectangle and press the **GOLD PARA** key. Press the slash (/) to shade the bar with slashes.

Step 4

Continue in the same way to shade the fourth bar with asterisks (*).

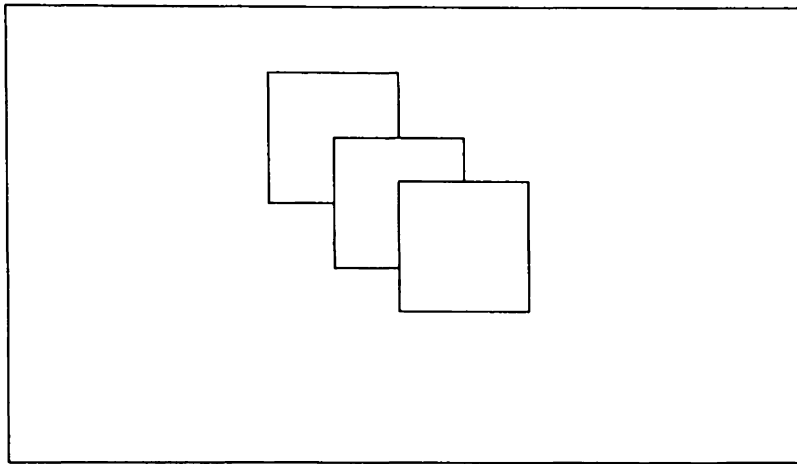


Figure 8.8 *Overlaid Boxes*

8.3 ***Overlaying Diagrams with TDE***

There may be times when you need to overlay one diagram with another, as in Figure 8.8. You can overlay diagrams easily with WPS-PLUS TDE.

Follow these steps to overlay one diagram onto another:

Step 1

Enter the TDE and, as described in Section 8.2.1, follow the steps for creating a rectangle. Enlarge the rectangle to create a box.

Step 2

Place the cursor at the upper left corner of the box and press the **SEL** key.

Step 3

Move the cursor to the bottom right corner of the box and press **GOLD CUT**.

Step 4

Move the cursor to the area in the box where you want to overlay and press **PASTE**. WPS-PLUS places the selected area above, below, or after the cursor, depending on how the autodirection is set. To place the selected area to the right of the original, make sure that autodirection is set to Auto->(autodirection=right).



To make all the lines meet in your diagram, use the **SEL** key to select the entire region, and then, press **GOLD TAB POS**. Now, all the lines in your diagram are connected with no gaps.

8.4

Designing Forms with TDE

Most businesses and organizations use preprinted forms. In this section, you'll learn how to create forms for your business.

The most important thing to remember when you create forms is to plan the form on paper before you do any work at your terminal. Use graph paper to design your form.

For the sample form in Figure 8.9, we set our left margin at 1 and our right margin at 79. We used graph paper for the design stage, working with a width of 79 squares. Experiment with the TDE to create your own forms for your business or organization.

Name										Mailstop									
Badge					CC					DTN									
Course					Description					Remarks									

Figure 8.9 Sample Form

You may want to make your form longer. To extend the form, simply create another TDE screen immediately below the first screen. Make sure to note the ruler markings so that both screens look the same.



Sometimes, you may get confused when you try to refer to the diagram for the proper ruler settings you need to extend the diagram. An easy way to get the exact ruler settings is to cut the last line of your first screen diagram and paste that line into the second screen. Now, you have the correct ruler setting for the second screen of your diagram. You can either incorporate it into your new screen or delete it.

8.4.1 Using the Wrapping Region

You can also create and edit forms by using the TDE's wrapping region. A wrapping region acts like a miniature screen. The cursor cannot move beyond it, and nothing you do inside the working regions affects the rest of the diagram. WPS-PLUS wraps lines as you add, delete, or paste text. You can create forms that have columns and sections of varying widths and lengths and produce professional-looking documents very easily.

Please provide all information requested. Complete the form accurately and legibly. Incomplete or illegible information will delay processing of your request. Sign and date the form, and take the completed form to your PSA/PA for processing to Payroll. Upon receipt, Payroll will notify you in writing of the effective date that your start, change, or stop authorization will take place. See additional instructions on the back of the form.

Name

Badge

Mailstop

Figure 8.10 Sample Form Using Wrapped Text

Figure 8.10 is an example of a form created with the wrapping region. Follow these steps to create the form:

Step 1

Create a document and call it *Form*. Invoke the TDE by pressing **GOLD**] (Change Editor) twice.

Step 2

Press the **DOWN ARROW** key twice, and press **GOLD** and the number **10** on your main keyboard.

Step 3

Press the **RIGHT ARROW** key. The cursor automatically moves to position 10 on your screen. Press the **SEL** key.

Step 4

Press the **DOWN ARROW** key nine times to move the cursor down nine lines.

Step 5

Press **GOLD** and enter the numeral **50** on your main keyboard. Press the **RIGHT ARROW** key and the cursor automatically moves to position 50 on your screen.

Step 6

Press **GOLD W** and enter the text below:

Please provide all information requested. Complete the form accurately and legibly. Incomplete or illegible information will delay the processing of your request. Sign and date the form, and take the form to your PSA/PA for processing to Payroll. Upon receipt, Payroll will notify you in writing of the effective date that your start, change, or stop authorization will take place. See additional instructions on the back of the form.

Step 7

When you finish entering text, press **GOLD 7** (Sent) on the numeric keypad. **GOLD 7** removes the box around your text.

You can continue to experiment with the wrapping area to produce a variety of formats for text that will be useful in forms and other documents.

8.5 TDE Diagrams

Mustang Fuel Corporation of Oklahoma City used the TDE to design the banner heading in Figure 8.11 for their monthly employee newsletter, VAXination.

Experiment with the TDE to create a banner similar to the one in Figure 8.11 for your company.

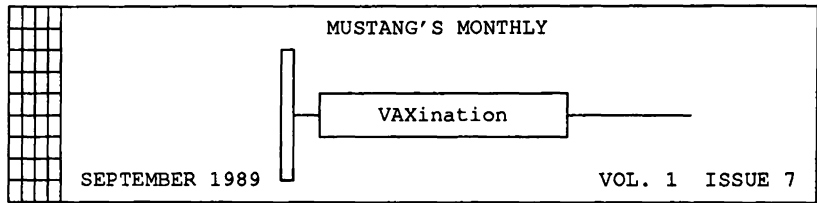


Figure 8.11 Newsletter Banner

Whenever you have a reorganization or hire new employees at your company, you may need to prepare a new organization chart. If you store the boxes as library documents, you won't have to remember the correct sizes of the boxes. Use Figure 8.12 as a guide in preparing your own organization chart.

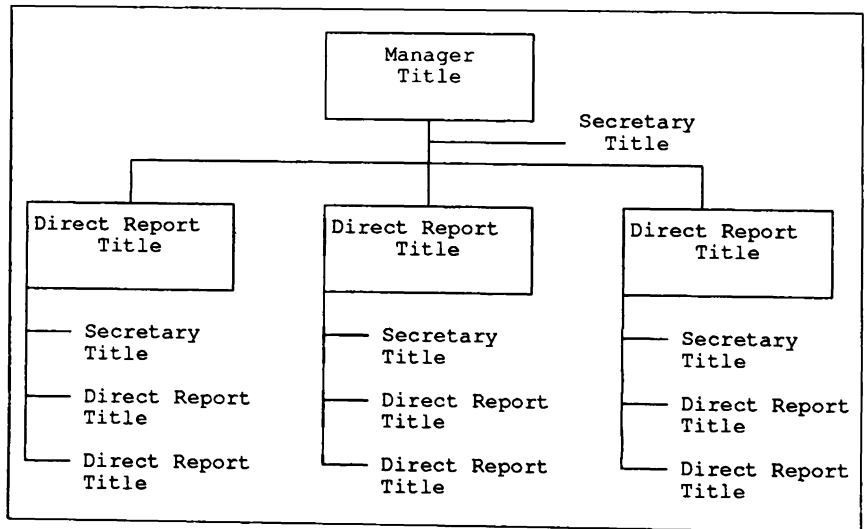


Figure 8.12 Organization Chart

8.5.1

Storing TDE Diagrams in a Library Document

Follow these steps to store the dummy organization chart in your library document:

Step 1

Edit your library document and press **GOLD B** (Bot Docmt).

Step 2

Enter a descriptive name for your organization chart. You might call it <<**ORG**>>.

Step 2

Enter the TDE and create a box. Don't forget to end your library document with two angle brackets (<<). (See Chapter 1 for more information about library documents.)

8.5.2

Retrieving TDE Diagrams from a Library Document

You can retrieve diagrams from your library document in the same way that you retrieve them when you're in the text editor. However, the entry is copied into the paste buffer rather than into your diagram.

To retrieve the dummy organization chart from your library document, simply press **GOLD L** (Libry) at the area of the document where you want to place the box. Enter the Library abbreviation, **ORG**, and press the **PASTE** key. The box scrolls into your document.

To search for a specific diagram, press **GOLD ,** (Srch); next, press **GOLD TDE**; and, finally, press the **ADVANCE** or **BACKUP** keys.

Chapter 9

Creating Characters for Technical Documents

If your organization does business with international companies or creates technical documents, you need a way to communicate with these companies and to produce technically correct reports or letters. If you create documents that use foreign characters or characters that are not on your keyboard, WPS-PLUS provides you with the techniques to display and print them. In this chapter, we'll show you how to create the following characters:

- Multinational characters
- Composite characters
- Subscripts and superscripts
- Complex expressions
- The Technical Character Set (TCS)

9.1 *Hardware Requirements*

Before you create multinational characters, composite characters, or the TCS, be sure that your printer can print the character. To display multinational characters on your screen, you must have a terminal that can emulate a VT100 terminal equipped with the Advanced Video option and Digital Equipment Corporation's Alternate Character ROM.

To access the TCS, you must have the following equipment, which supports the WPS-PLUS TCS:

- VT200 series terminals
- LA100 and LA210, with the TCS option installed
- LN03, with the TCS option installed

Draft printers can print special characters and character sets. Other printers may print the regular keyboard character for that key or leave a blank space to allow you to write the character in by hand. Table 9.1 describes the printers and what they print.

Table 9.1 *Printer Information*

<i>Printer</i>	<i>What It Prints</i>
LA100, LA210, LQP02, LQP03	Character sets (Alternate characters are printed if they have the Digital Technical character memory and the Digital Supplemental character memory. Without this memory, they print fallback characters.)
LN03, LA75	Character sets and alternate characters
LA50	Character sets and some alternate characters (plus/minus sign, degree sign, paragraph marker, section marker, and the filled-in bullet)

9.2

Multinational Characters

A multinational character is a special character in the Digital Equipment Corporation's Multinational Character Set. For example, the inverted question mark (¿), the yen sign (¥), and the copyright sign (©), are all multinational characters. See Table 9.3 at the end of this chapter for a complete list of multinational characters.

To create a multinational character, press the **COMPOSE CHARACTER** key (to the left of the **SPACE BAR** key), and enter the two characters that make up the multinational character. The two characters combine, and WPS-PLUS displays the multinational character on your screen. WPS-PLUS treats a multinational character as a single character. Note that you can highlight, erase, superscript, and subscript the character.

9.3

Composite Characters

A composite character is a combination of two or more characters that you create; for example, a cents sign (¢) and a not-equal-to sign (≠) are composite characters.

To create a composite character, enter the characters that make up the composite character. For instance, to create a not-equal-to symbol (≠), enter the equal sign (=), and then enter the slash (/). Now your line looks like this, =/. Back up to place the cursor on the slash, and press **GOLD D** (Dead key). The characters combine and the new character displays on your screen as a small box; only when you print your document does the character display as the not-equal-to sign.

Table 9.2 shows a few of the composite characters you can create and print.

Table 9.2 Composite Characters

Combine These Characters	To Produce
c and /	¢
+ and _	±
and ^	↑
> and -	->
e and ^	ê

9.4 Subscripts and Superscripts

A subscript is a character that prints one-half line below the line of type. In the example H₂O, the 2 is a subscript. Conversely, a superscript is a character that prints one-half line above the line of type. The 2 in E = MC² is a superscript.



Whenever you use **GOLD A** (Sub Script) or **GOLD Q** (Super Script), use a ruler with line-and-a-half or double spacing (N or D in your ruler). Otherwise, the subscripts or superscripts crowd the lines closest to them.

To subscript the expression H₂O, place the cursor at the 2 and press **GOLD A** (Sub Script). When you print the document, the 2 displays as a subscripted character. To resume regular printing for the next character, the O, press **GOLD Q** (Super Script).

To superscript the expression E = MC², place the cursor at the 2 and press **GOLD Q** (Super Script). When you print the document, the 2 displays as a superscripted character. To resume regular printing, press **GOLD A** (Sub Script).



Use view mode (**GOLD V**) to see the "q" or the "a" beneath superscripted or subscripted characters.

9.5 *Complex Expressions*

Complex expressions contain many subscripts and superscripts. For example, the equation $a = (q^1 + q^2 + a^{n-1} + b + n_a)$ is a complex expression.

There are two ways to write complex expressions. You can superscript or subscript each character individually, or you can create a new ruler with half-line spacing. Follow these steps to use the second method to produce this complex expression:

$$q(a_1m + 2ma_2b + a_2m^2q + a - m^mq^{n-1})$$

Step 1

Press **GOLD R** (Ruler) and embed an F left-margin setting in your ruler. (See Chapter 1 for more information on ruler settings.)

Step 2

Enter the letters that will not be subscripted or superscripted, leaving blank spaces for the subscripted and superscripted letters. Press **RETURN**. For example, enter the following characters as the first line in the complex expression:

$q(a\ m + 2ma\ b + a\ m\ q + a - m\ q\)$

Step 3

Press **RETURN** to move the cursor to the next line for subscripting or to the line above for superscripting. Enter the subscripted or superscripted characters.

WPS-PLUS prints the subscripts or superscripts where they should appear on your screen, as long as the ruler above the character has an F left-margin setting and your printer allows half-line spacing.



You can type the superscripted (or subscripted) character on the line above (or below) the text and then cut the characters and paste them on the appropriate line.

9.6 *Technical Character Set*

The TCS Library contains the following documents:

- A list of the technical characters
- Examples of equations using TCS characters
- Keyboard layout of the TCS keys
- The two-letter abbreviations to use when copying the TCS into your document
- The technical characters and symbols to use when creating equations

Figure 9.1 illustrates the keyboard layout of the TCS, and Table 9.4 at the end of the chapter is a list of the characters in the TCS.

Follow these steps to access the TCS Library:

Step 1

Select the UD option from the Word and Document Processing menu, and press **RETURN**.

Step 2

Select **C** to create a new UDP and call it *LIBRARY*. Press **GOLD G** (Get Docmt) and enter **VMS** at the **GOLD GET** menu. Enter **OA\$LIB:LIBRARY.UDP** at the Receive a Documents from VMS form. Press the **EXIT** key twice, once to file the UDP and again to return to the Word and Document Processing menu.

Step 3

Press **GOLD U** or the **DO** key to display the UDP Selection Form. Press **RETURN**.

The *LIBRARY* UDP creates five new documents in the *Library of TCS Documents* folder. One of these documents is called the *Technical Character Library*.

9.7 Using the TDE with Technical Characters

Using the technical expressions stored in your *Library of TCS Documents* folder, you can create this equation:

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

Follow these steps to create the TDE equation:

Step 1

Create a new document. Press **GOLD M** or the **MAIN SCREEN** key to display the Editor menu. Specify the Technical Character Library as your Abbreviation Document and press **RETURN**.

Step 2

Return to the document you created in Step 1. Open the TDE by pressing **GOLD I** twice. Reposition the cursor by pressing **RETURN** three times and **TAB** three times to provide enough free space to draw the equation.

Step 3

To retrieve the square root expression, press **GOLD = (Abbrv)**. Enter the numeral **47** at the prompt. **WPS-PLUS** searches the *Technical Character Library* for the square root symbol stored under 47. The square root symbol is moved into the **WPS-PLUS** paste area.

Step 4

Press the **PASTE** key on the numeric keypad, and the square root symbol will appear in the center of your screen.

Step 5

Move the cursor inside the square root symbol so that it is two lines below the horizontal line of the symbol and one space to the right of the vertical line of the symbol and press the **ALT CHAR** key. The **ALT CHAR** key is on the top row of keys on your keyboard (the gray key above the hyphen key).

Step 6

Hold down the **SHIFT** key and press the **S** key. The summation sign displays inside the square root symbol.

Step 7

Move the cursor up one space and press **GOLD = (Abbrv)**, then enter **(2**. The expression **(2** is the symbol for the large open parenthesis.

Step 8

Press the **PASTE** key to insert the open parenthesis at the cursor. Move the cursor down one space and enter **x - x**.

Step 9

Move the cursor one space above the second **x**. Press the **PARA** key on the numeric keypad. Next, press the **GOLD** key, and then press **5** on the main keyboard to display the TDE special character that appears above the second **x**.

Step 10

Press **GOLD = (Abbrv)**, then enter **)2**. Press **PASTE**. **WPS-PLUS** inserts the right parenthesis. Enter the numeral **2**.

Step 11

Using the TDE pen, draw a line beneath the expression you have created so far. Enter $n - 1$ beneath the line. Press **GOLD]** to exit from the TDE diagram.



If you plan on using the equation over again, store it in your Library Document so that it can be inserted automatically in any document.

9.8

Multinational and Compose Characters

Some languages use special characters and accented letters that are not available on the WPS-PLUS keyboard. Table 9.3 lists the available multinational characters and the two characters used to create them. It identifies all possible compose sequence combinations and their decimal codes. Unless otherwise noted in the table, the keys pressed after you press the **COMPOSE CHARACTER** key, to the left of the space bar, may be pressed in either order.

Table 9.3 *Multinational Characters*

<i>Char</i>	<i>Description</i>	<i>Compose Sequences</i>
"	Quotation marks	"(Space)
#	Number sign	++
'	Apostrophe; acute accent	'(SPACE)
@	Commercial "at" sign	AA or aa
[	Left bracket	((
\	Back slash	//
]	Right bracket	))

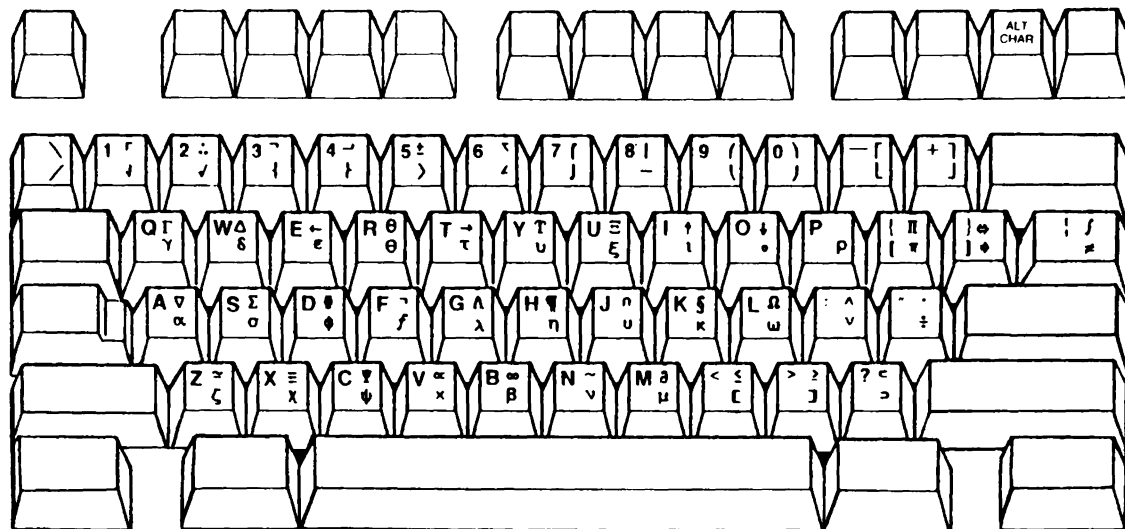
Table 9.3 Multinational Characters (Continued)

Char	Description	Compose Sequences
^	Circumflex accent	^(Space)
`	Grave accent	`(Space)
{	Left brace	(-
	Vertical line	/^
}	Right brace	)-
~	Tilde	~(Space)or -(Space)
¡	Inverted exclamation mark	!!
¢	Cent sign	C/ or C or ¢/ or ¢:
£	Pound sign	L- or L= or l- or l=
¥	Yen sign	Y- or Y= or y- or y=
§	Section sign	S0 or SO or s0 or so
¤	General currency sign	X0 or XO or x0 or xo
©	Copyright sign	C0 or CO or c0 or co
ª	Feminine ordinal indicator	A__ or a__
«	Angle quotation mark left	<<
°	Degree sign	0^
±	Plus/minus sign	+-
²	Superscript 2	2^
³	Superscript 3	3^
µ	Micro sign	/U or/u (in order)
¶	Paragraph sign; pilcrow	P! or p!
·	Middle dot	.^
¹	Superscript 1	1^
º	Masculine ordinal indicator	O__ or o__
»	Angle quotation mark right	>>
¼	Fraction one quarter	14 (in order)
½	Fraction one half	12 (in order)
¿	Inverted question mark	??
À	Capital A with grave accent	A'
Á	Capital A with acute accent	A'
Â	Capital A with circumflex accent	A^
Ã	Capital A with tilde	A~ or A-
Ä	Capital A with umlaut	A" or A(Umlaut)
Å	Capital A with ring; angstrom	A*
Æ	Capital AE diphthong	AE (in order)

Char	Description	Compose Sequences
Ç	Capital C with cedilla	C,
È	Capital E with grave accent	E'
É	Capital E with acute accent	E'
Ê	Capital E with circumflex accent	E^
Ë	Capital E with umlaut	E" or E(Umlaut)
Ì	Capital I with grave accent	I'
Í	Capital I with acute accent	I'
Î	Capital I with circumflex accent	I^
Ï	Capital I with umlaut	I" or I(Umlaut)
Ñ	Capital N with tilde	N~ or N-
Ò	Capital O with grave accent	O'
Ó	Capital O with acute accent	O'
Ô	Capital O with circumflex accent	O^
Õ	Capital O with tilde	O~ or O-
Ö	Capital O with umlaut	O" or O(Umlaut)
Œ	Capital OE ligature	OE (in order)
Ø	Capital O with slash	O/
Ù	Capital U with grave accent	U'
Ú	Capital U with acute accent	U'
Û	Capital U with circumflex accent	U^
Ü	Capital U with umlaut	U" or U(Umlaut)
Ÿ	Capital Y with umlaut	Y" or Y(Umlaut)
ß	German small sharp s	ss
à	Small a with grave accent	a'
á	Small a with acute accent	a'
â	Small a with circumflex accent	a^
ã	Small a with tilde	a~ or a-
ä	Small a with umlaut	a" or a(Umlaut)
å	Small a with ring	a*
æ	Small a with diphthong	ae (in order)
ç	Small a with cedilla	a,
è	Small e with grave accent	e'
é	Small e with acute accent	e'
ê	Small e with circumflex accent	e^
ë	Small e with umlaut	e" or e(Umlaut)

Table 9.3 Multinational Characters (Continued)

Char	Description	Compose Sequences
ì	Small i with grave accent	i'
í	Small i with acute accent	i'
î	Small i with circumflex accent	i^
ï	Small i with umlaut	i" or i(Umlaut)
ñ	Small n with tilde	n~ or n-
ò	Small o with grave accent	o'
ó	Small o with acute accent	o'
ô	Small o with circumflex accent	o^
õ	Small o with tilde	o~ or o-
ö	Small o with umlaut	o" or o(Umlaut)
œ	Small oe ligature	oe (in order)
ø	Small o with slash	o/
ù	Small u with grave accent	u'
ú	Small u with acute accent	u'
û	Small u with circumflex accent	u^
ü	Small u with umlaut	u" or u(Umlaut)
ÿ	Small y with umlaut	y" or y(Umlaut)



To display a technical character on your screen:

- 1 Press ALT CHAR
- 2 Press the appropriate key on the main keyboard.

Figure 9.1 LK201 Keyboard

Table 9.4 Technical Character Set List

Use	To Produce	Which Displays	Fallback Character
(Uppercase Greek)			
W	capital delta, triangle	Δ	D
D	capital phi	Φ	F
Q	capital gamma	Γ	G
R	capital theta	Θ	J
G	capital lambda	Λ	L
{	capital pi, product	Π	P
C	capital psi	Ψ	Q
S	capital sigma, summation	Σ	S
L	capital omega, Ohm sign	Ω	W
U	capital xi	Ξ	X
Y	capital upsilon	Υ	Y
(Lowercase Greek)			
a	small alpha	α	a
b	small beta	β	b
x	small chi	χ	c
w	small delta	δ	d
e	small epsilon	ϵ	e
d	small phi	ϕ	f
q	small gamma	γ	g
h	small eta	η	h
i	small iota	ι	i
r	small theta	θ	j
k	small kappa	κ	k
g	small lambda	λ	l
m	small mu (micro sign)	μ	
n	small nu	ν	n
[	small pi	π	p
c	small psi	ψ	q
p	small rho	ρ	r
s	small sigma	σ	s
t	small tau	τ	t
l	small omega	ω	w
u	small xi	ξ	x
y	small upsilon	υ	y
z	small zeta	ζ	z

Use	To Produce	Which Displays	Fallback Character
(Mathematical)			
<	less than or equal	$\leq$	<
\	not equal	$\neq$	=
>	greater than or equal	$\geq$	>
	integral	$\int$	S
V	variation, proportional to	$\propto$	a
B	infinity	∞	o
' (apostrophe)	division, divided by	$\div$	[
A	nabla, del	∇	v
N	is approximate to	$\approx$	~
Z	similar or equal to	$\approx$	~
v	times, cross product	$\times$	x
2	radical	$\sqrt{\quad}$	V
M	partial derivative	∂	or a
f	function	f	f
E	left arrow	$\leftarrow$	<
I	upward arrow	$\uparrow$	^
T	right arrow	$\rightarrow$	>
O	downward arrow	$\downarrow$	v
(Logic)			
@	therefore	$\therefore$	:
}	if and only if	$\Leftrightarrow$	<
}	implies	$\Rightarrow$	=
X	identical to	$\equiv$	=
?	is included in	$\subset$	c
/	includes	$\supset$	or >
J	intersection	$\cap$	^
j	union	$\cup$	v
:	logical and	$\wedge$	&
;	logical or	$\vee$	..
F	logical not	$\neg$	~
(Component characters)			
1	left radical	$\sqrt{\quad}$	or V
!	top left radical	$\sqrt{\quad}$	or [
8	horizontal connector	$\mid$	.
&	top integral	$\int$	(
7	bottom integral	$\int$	)
*	vertical connector	$\mid$	
_(underscore)	top left square bracket	$\lfloor$	[or [
-(hyphen)	bottom left square bracket	$\lfloor$	[or [

Table 9.4 Technical Character Set List (Continued)

Use	To Produce	Which Displays	Fallback Character
+	top right square bracket	]	] or]
=	bottom right square bracket	]	] or]
(	top left parenthesis	(	(
9	bottom left parenthesis	(	(
)	top right parenthesis	)	)
0	bottom right parenthesis	)	)
3	left middle curly brace	{	{
4	right middle curly brace	}	}
^	top left summation	<	> or]
6	bottom left summation	<	< or]
~	top vertical summation connector	\	\
`	bottom vertical summation connector	/	/
#	top right summation	]	⌘ or]
\$	bottom right summation	]	⌘ or]
5	right middle summation	>	>
(Multinational characters)			
"	middle dot	.	.
%	plus/minus sign	±	±
, (comma)	left bracket	[	[
.	right bracket	]	]
H	paragraph sign, pilcrow	¶	¶
K	section sign	§	§
o	degree sign	°	°

Chapter 10

Using Linguistic Tools

WPS-PLUS provides you with four linguistic tools to improve the quality of your documentation and to produce grammatically correct documents. The Spell Checker, the Thesaurus, and the Usage Alert option are all part of the standard WPS-PLUS linguistic package. The fourth tool, Grammar Checker, must be purchased separately; check with your system manager to see whether it is installed.

WPS-PLUS also includes the Redline and Change Bar options. The Redline option allows you to mark a section of text to be deleted without actually deleting text. The Change Bar option allows you to mark an area of text that you have changed.

10.1 *Spell Checker*

The Spell Checker searches through your document and flags all words it cannot find in the dictionary. It corrects your spelling by comparing the words in your document with words in several dictionaries. You can create your own dictionaries and instruct WPS-PLUS to check through these dictionaries as well.

Your system manager installs and maintains the master dictionaries, and you maintain the personal dictionaries you create. We'll show you how to create your own dictionaries later in this chapter.

With the WPS-PLUS Spell Checker you can check the spelling of your document in more than one dictionary at the same time. When WPS-PLUS checks your document for spelling errors, it compares the words in your document with words in the other dictionaries you designate. These dictionaries may include a master dictionary, a personal dictionary, an international dictionary, and any other dictionaries in your system. For example, you can check a paragraph that contains the American misspelled words "infomation" and "docment" and the French word "maison." When WPS-PLUS checks your document, it flags all three as misspelled words. Use the Replace option to correct the misspelled words "infomation" and "docment," and use the Add and Dictionary options to enter the French word "maison" to your personal French dictionary.

The Spell Checker can check the spelling of specific words, selected paragraphs, or your entire document.

10.1.1 *Checking a Word*

To check a single word, position the cursor on, or immediately after, the word and press **GOLD S** (Spell Check). If WPS-PLUS cannot find a match for the word, it highlights the word.

10.1.2 *Checking a Paragraph*

To check a selected paragraph, position the cursor at the start of the paragraph to be checked and press the **SEL** key. Move the cursor to the end of the paragraph and press **GOLD S** (Spell Check). WPS-PLUS checks the paragraph, stops processing, and highlights the first incorrect word in the paragraph.

To check an entire document, select the **SC** (Spell Check) option at the second screen of the Word and Document Processing menu. Enter **SCD** to check spelling in the document. WPS-PLUS stops at the first incorrect word in the document and highlights the word.

WPS-PLUS checks the incorrect word in the selected dictionaries. If it cannot find a match, either it returns a message telling you the word cannot be found in the dictionary and asks you to correct the spelling, or it returns a series of similarly spelled words at the bottom of your screen. For example, when I used the Spell Checker to check the spelling of this chapter, I found that I had spelled "word" as "wrod." This is what Spell Checker returned:

word [More ...]

Replace Edit Ignore Add Pass Dictionary Finish

Table 10.1 lists the Spell Check options and how to use them.

To correct the spelling, move the **RIGHT ARROW** key to the correct option and press **RETURN**.

Table 10.1 Spell Check Options

<i>Option</i>	<i>Function</i>
Replace	To replace a misspelled word with the highlighted one from the spelling list
Edit	To correct the spelling when WPS-PLUS cannot find an alternative spelling for a word
Ignore	To ignore what WPS-PLUS perceives as an incorrect spelling for the current Spell Check session only. The term may be a proper name or a foreign word that you don't want added to your permanent dictionary. WPS-PLUS ignores the word for the current Spell Check session only.
Add	To add a word to your personal or international dictionary
Pass	To pass what WPS-PLUS perceives as an incorrect word each time it's encountered in the document. Pass is similar to ignore except that it stops at each occurrence of the word it perceives to be incorrect.
Dictionary	To choose the specific dictionary to add words to for the current Spell Check session. You can decide to put some words in your personal dictionary and some words in your international dictionary.
Finish	To end the Spell Check session

You can add words specific to your business to your dictionary. For instance, you can add medical, legal, or insurance terms, as well as proper names and any other words you use regularly. Thus, if you work for a medical or chemical company and find you frequently type words like ferrosferic oxide or styrene acrylic resin, you can create a medical dictionary and add these words to the dictionary. WPS-PLUS will now flag them as misspelled only when they really are misspelled.



If you frequently type long or complex words, enter them in your abbreviation document. Instead of typing the word each time, simply press **GOLD = (Abbrev)** and the two-character abbreviation for the word. (See Chapter 1 for more information on abbreviation documents.)

Follow these steps to edit the dictionary and add words to it:

Step 1

Select the **DIC** option from the second screen of the Word and Document Processing menu. This option advances you to the Dictionary Maintenance menu. See Figure 10.1. At this menu, enter **C** to create a dictionary. Enter a descriptive title for the dictionary. The folder name *DICTIONARIES* is the default. Press **RETURN**.

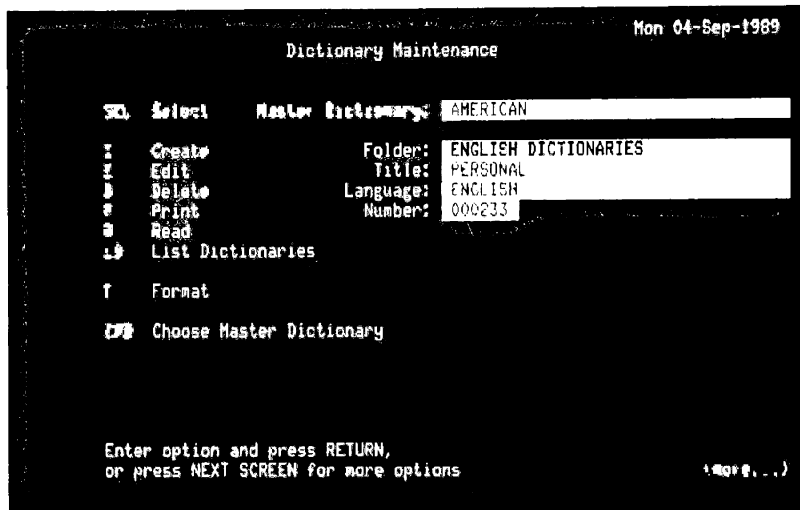


Figure 10.1 Dictionary Maintenance Menu

Step 2

Enter the words you wish to include in your dictionary, and file the dictionary just as you would any other document.

Step 3

Select the **FORMAT** option and press **RETURN**. Then select the **READ** option to see how the formatting worked.

WPS-PLUS uses the American dictionary first to check the spelling of a word. If it doesn't find the word in the American dictionary, it will automatically switch to your personal dictionary selection.

10.2 Thesaurus

The Thesaurus finds synonyms for specific words in your document. By invoking the Thesaurus, you can quickly find a more suitable or precise word to use.

To use the WPS-PLUS Thesaurus, place the cursor on the word to be checked. Press **GOLD J** (Linguistic Aids). Choose the Thesaurus option by moving the **RIGHT ARROW** key to the Thesaurus option and pressing

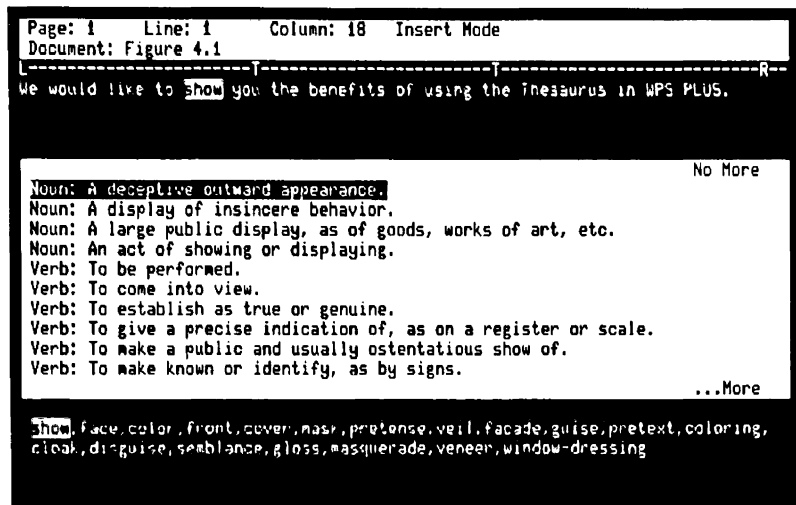


Figure 10.2 Using the Thesaurus

RETURN. WPS-PLUS lists synonyms for the word in question. Use the arrow keys to select the appropriate synonym. Press **RETURN** to replace the selected word.

As an example, we placed the cursor on the word "show." WPS-PLUS presented us with the screen shown in Figure 10.2.

Move the arrow keys along the list of words at the bottom of the screen to select the synonym for "show".

10.3 Usage Alert

The **Usage Alert** option provides you with definitions for 3,000 commonly misused words, such as affect and effect, principle and principal, and capital and capitol. It checks to see whether you are using a particular word correctly. When you select a particular word in your document, the Usage Alert option gives you a brief definition to help you identify the word you want.

To invoke the Usage Alert option, place the cursor immediately after the word you want to check and press **GOLD J**. Choose the Usage Alert option by moving the **RIGHT ARROW** key to the Usage option and pressing **RETURN**. The selected word is highlighted. Use the arrow key to select the correct usage, and press **RETURN** to replace the selected word.

In the following example, we want to check the usage of the word "principal":

We will speak with the principal after the meeting.

```
principal; (chief; money loaned or invested)
principle; (rule; law)
```

The word "principal" is the correct word.

10.4 *Grammar Checker*

The Grammar Checker is the newest member in the family of linguistic tools. It is an electronic proofreader that checks your document for several types of grammatical errors, including syntax, level of formality, punctuation, word usage, and spelling.

The WPS-PLUS Grammar Checker must be purchased separately. It is primarily intended to check business and technical documents. It provides suggestions to help you improve your writing, and it works best with text that follows standard rules of English, such as memos, reports, and business letters. It's not as useful for informal notes that don't conform to standard rules of English.

Grammar Checker analyzes sentences for their grammatical form, not for their meaning. For example, Grammar Checker accepts the sentence "Colorless green ideas sleep furiously," because even though it doesn't make sense, it is grammatically correct. However, Grammar Checker will flag the sentence "Colorless green ideas sleeps furiously," because the subject (ideas) and the verb (sleeps) do not agree.

Grammar Checker does not check the grammar of text inside quotation marks. But it does check the following items:

- Spelling
- Punctuation used with quotation marks
- Case of the first letter of the word in the quoted text

After using Grammar Checker, you can still expect to find some errors in your document. Because Grammar Checker looks only at grammatical form, not meaning, it doesn't detect certain types of errors. It cannot distinguish between "principle" and "principal" because both words are nouns. Similarly, Grammar Checker does not flag any errors in the sentence "We have reserved a hotel suit for you," because "suit" is a noun and is the correct part of speech for the word in that place in the sentence.

Grammar Checker examines each sentence, looking for spelling and grammatical errors. If it finds an error, it stops processing, highlights the error, displays a message to explain the error, and displays a menu of options similar to the options available with Spell Checker. For example, if you had this grammatically incorrect sentence in your document,

... who I can discuss this matter with ...

WPS-PLUS Grammar Checker stops and prints the following message:

Consider "whom" instead of "who."

You can use the Grammar Checker option to check an entire document or part of a document. To check an entire document, select the **GC** option at the Word and Document Processing menu and press **RETURN**.

To check only part of your document, move the cursor to the beginning of the text you want to check and press the **SEL** key. Move the cursor to the end of the region you want to check and press **GOLD J** (Linguistic Aids). The Linguistic Aids menu displays on your screen. Press **G** or use the **RIGHT ARROW** key to highlight the Grammar Checker option and press **RETURN**. WPS-PLUS highlights any grammatical errors it finds.



Grammar Checker does not automatically check footnote text. To check footnote text, press **GOLD Y** (Footnote) to display the footnote text on your screen. Use the **SEL** key to select the footnote text and press **GOLD J**. Press **G** or use the **RIGHT ARROW** key to highlight the Grammar Checker option and press **RETURN**.

10.4.1 ***Correcting Errors***

After you select the area to be checked, WPS-PLUS Grammar Checker starts processing the selected text. When it spots a grammatically incorrect sentence, it stops processing and displays a menu of options. The options are listed here:

- Edit
- Replace
- Ignore
- Add
- Pass
- Dictionary
- Finish
- More Information

All the options operate the same way as they do in the Spell Check option, except for the More Information option. Use the More Information option when you want a more detailed message. You can receive up to three levels of messages. However, not all errors have the same levels of messages.

The following example shows the first, second, and third levels of messages for an error where the word "percentage" is misused.

First-Level Message

Consider "percent" instead of "percentage."

Second-Level Message

"Percentage" is used when referring to a nonspecific quantity. "Percent" is used to identify a specific quantity designated by a cardinal number, such as 40, 6.5, or thirty-two.

Third-Level Message

In 1937 a large percentage of his time was spent worrying about his personal life.

After the press conference, her popularity rating dropped twelve percent.

10.4.2 *Changing Grammar Checker Values*

Grammar Checker lets you change some of the values it uses when checking your documents. Changing these values affects how Grammar Checker processes your documents. All new values stay in effect until you change them again.

To change Grammar Checker values, use the GCD option on the second screen of the Word and Document Processing menu. Enter **GCD** and press **RETURN**. To change a value, position the cursor on the value you want to change, and erase the contents of the field. Enter the new value and press **RETURN**. You can change the following values:

- Number of words splitting an infinitive. An infinitive consists of the word "to" followed by a verb; for example, "to go" is an infinitive. It is said to be split when one or more words appear between the word "to" and the verb "go," such as "to quickly go." Grammar Checker gives you an error message when one or more words split an infinitive.

- Number of words in a noun group. A noun group is two or more consecutive nouns used in a single phrase, such as "mainstream computer environment." Long noun phrases, or modifier "build-ups," can make a sentence ambiguous and hard to read. Grammar Checker gives you an error message when four or more consecutive nouns are in a single phrase.
- Number of clustered prepositional phrases. Clustered prepositional phrases are two or more prepositional phrases in a series, such as "on the shelf in the garage." Grammar Checker gives you an error message when four or more clustered prepositional phrases are in a series.

10.5 ***Redline Option***

If two or more people are editing the same document, WPS-PLUS lets you keep track of all modified text by activating a feature called Redline. Redline draws a dashed line through text that has been edited, replaced, deleted, or modified so that both the original and the new text appear in a document. When you print the document, Redline appears as a solid line of hyphens through the edited text.

You may want to use the Redline feature if you have a new form letter that has to be approved by a few people in your group before it is mailed out to the client. With Redline, everyone can make changes to the letter without deleting changes made by someone else.

Any new text you enter is highlighted in the way you selected at the Redline enable option. This highlighting helps you keep track of the text you edited or added in a particular editing session.

There are two ways to enable Redline. One is to enable it for the entire document. The other is to enable it for a specific portion of the text.

10.5.1

Redlining an Entire Document

Follow these steps to Redline an entire document:

Step 1

Enter the WPS–PLUS Editor menu by pressing **GOLD M** (Menu) or the **MAIN SCREEN** key while you are editing the document.

Step 2

Select **EA** to display the Editor Attributes form. Enter **Y** at the Redline Enabled prompt, and enter the Redline characteristic. The default setting is **UNDERLINE**. However, you can select the Redline option by using **BOLD**, **UPPERCASE**, or **DOUBLE UNDERLINE**. If you want to view all the Redline characteristics in the field, delete the contents of the field with the **LINE FEED** key and press the **FIND** key.

Redline existing text by deleting it with the following keys:

- **DEL CHAR**
- **DEL WORD**
- **RUB CHAR OUT**
- **RUB WORD OUT**
- **GOLD RUB LINE**
- **GOLD RUB SENT**

Here is an example of some text we created. Before we edited the text, it looked like this:

Times change. A century ago, people crowded into large halls to view displays of uniform industrial products turned out by precision machinery. Today crowds have driven their cars and stepped into the outdoors to see a horse drawn coach, to buy handmade products and to eat a meal ground by a waterwheel.

Our editor looked at the text and made some suggestions to improve the text. After the edit, it looked like the example below. We used the UNDERLINE character; and when we printed the document, all the added text was underlined, and all deleted text appeared with a solid line of hyphens through the word.

Times change. A century ago, people rode in their horse-drawn carriages and crowded into large halls to view displays of ~~fantastic~~ uniform industrial products turned out by precision machinery. Today crowds have driven their cars and stepped into the outdoors to see a horse-drawn coach, to buy handmade products and to eat a meals ground by a waterwheel.

TIP

If you make a mistake when entering text in automatic redlining, the only way to eliminate the text is by using the CUT and PASTE keys.

To delete all Redlined text marked for deletion, press the SEL key on the numeric keypad and move the cursor to the end of the entire Redlined area. Press CTRL/N and WPS-PLUS removes all the redlined text.

TIP

Turn the automatic Redline option off in the Editor Attributes menu when you are not using it.

To Redline specific portions of the text, follow these steps:

Step 1

Move the cursor to the start of the text to be Redlined and press the **SEL** key. Move the cursor to the end of the text to be Redlined and press **GOLD LINE**. The Highlighting menu displays at the bottom of the screen with Redline highlighted. If Redline is not highlighted, press **R**.

Step 2

Press the **DOWN ARROW** key once. The word "Apply" appears below Redline. When you press **RETURN**, WPS-PLUS returns you to your document with the Redlined text shown in reverse video on the screen. The line of hyphens appears only when you print the document:

If two or more people are editing the same document WPS-PLUS lets you keep track of all modified text. Use the WPS-PLUS Redline function. ~~Redlining draws a line through text that has been edited, replaced, deleted or modified, so that both the original and the edited text appear in the document. When you print the document, redlining appears as a line of hyphens through the edited text.~~

Change Bars

Use the Change Bars option to identify text for revision or review or text that has changed since a previous version of a document. The change bars display in the first character position to the left on each printed line.



Set a left margin of at least 2 in the region where you want to insert the change bars. Otherwise, the change bars overstrike the first character in each line.

Follow these steps to insert change bars in existing text:

Step 1

Move the cursor to the start of the text where you want to insert change bars and press the **SEL** key.

Step 2

Move the cursor to the end of the text where you want to insert change bars and press **GOLD LINE**. The Highlighting menu displays on your screen.

Step 3

Press **C** and the **Change__bars** option is highlighted. Press the **DOWN ARROW** key to apply the **Change__bars** option and press **RETURN**. You return to your document with column one of each line you changed in reverse video. The reverse video indicates where the change bars will appear when you print the document.

Let's say that you've written a manuscript, and you've just incorporated the comments suggested by your editor. You marked all your changes with change bars using **WPS-PLUS**, and now the editor wants to review the changes you've made. He doesn't want to page through the whole manuscript; he just wants to see how his comments were incorporated.

To look at the manuscript on the screen to see the change bars, the editor presses the **FIND** key. Then, he presses **GOLD LINE**, which is the **LINE** key on the numeric keypad. The attribute window displays on the screen. The editor indicates the **Change__bars** attribute by pressing the **RIGHT ARROW** key once, the **RETURN** key, and either the **ADVANCE** or the **BACKUP** key. He can then easily view all the changes you made.

Chapter 11

Creating an Outline

When you write large documents or plan new projects, you can use the Paragraph Numbering option on the WPS-PLUS Document Processing menu to help you create an outline of your tasks or divide your document into chapters.

11.1 *Outlining Styles*

You can choose between the office style outline, illustrated in Figure 11.1, or the decimal style outline, illustrated in Figure 11.2. Although the office style was designed for nontechnical documents and the decimal style was designed for technical documents, you can use them interchangeably.

- I. How to Make Pictures
 - A. The Camera
 - 1. Choosing a Camera
 - 2. Camera Care
 - B. Lenses and Shutters
 - C. Film
 - 1. Black and White Film
 - 2. Correct Exposure
 - 3. Film Speed
- II. Darkroom Techniques
 - A. How to Prepare and Equip a Darkroom
 - 1. Photographic Equipment
 - 2. Photographic Chemicals
 - B. How to Develop Film
 - 1. Time and Temperature
 - 2. Film Handling

Figure 11.1 Office Style Outline

- 1. How to Make Pictures
 - 1.1 The Camera
 - 1.1.1 Choosing a Camera
 - 1.1.2 Camera Care
 - 1.2 Lenses and Shutters
 - 1.3 Film
 - 1.3.1 Black and White Film
 - 1.3.2 Correct Exposure
 - 1.3.3 Film Speed
- 2. Darkroom Techniques
 - 2.1 How to Prepare and Equip a Darkroom
 - 2.1.1 Photographic Equipment
 - 2.1.2 Photographic Chemicals
 - 2.2 How to Develop Film
 - 2.2.1 Time and Temperature
 - 2.2.2 Film Handling

Figure 11.2 Decimal Style Outline

11.1.1 Creating an Outline

To create an outline, you insert specific delimiters before each level of header so that WPS-PLUS will know where to place these headers and the logical way to arrange your document. These delimiters can be brackets [], parentheses (), angle brackets, <>, or any other delimiter you choose.

Follow these steps to create the outlines in Figures 11.1 and 11.2:

Step 1

Create a document, call it *Photo*, and enter the following text:

```
[1] How to Make Pictures
[2] The Camera
[3] Choosing a Camera
[3] Camera Care
[2] Lenses and Shutters
[2] Film
[3] Black and White Film
[3] Correct Exposure
[3] Film Speed
[1] Darkroom Techniques
[2] How to Prepare and Equip a Darkroom
[3] Photographic Equipment
[3] Photographic Chemicals
[2] How to Develop Film
[3] Time and Temperature
[3] Film Handling
```

Step 2

File the document *Photo*. Select **PN** from the second screen of the Word and Document Processing menu to display the Paragraph Numbering menu. Figure 11.3 illustrates the Paragraph Numbering menu.

Step 3

Enter the folder name and title of the new output document. Enter **N** at the following prompt: Produce a Table of Contents, Index and/or Table of Authorities (Y/N). Press **RETURN** to accept brackets as the default delimiter.

Step 4

Press **NEXT SCREEN** to display the second screen of the Paragraph Numbering menu.

d i g i t a l

WPS-PLUS/VMS T3.1
Word and Document Processing Menu

Thu 05-Apr-1990

SEL Select

 1 Create

Folder: PARAGRAPH NUMBERING
 Title: Photo
 Date: Modified on: 03-Apr-1990 17:38
 Number: 000066

Paragraph Numbering, Tables, and Indexing

Enter Details for Output Document

Folder: PARAGRAPH NUMBERING

Title: Photo - Outline

Produce a Table of Contents, Index and/or Table of Authorities (Y/N): N

Delimiters: 1 . 1

Enter information and press RETURN, or
press NEXT SCREEN for more fields

Figure 11.3 Paragraph Numbering Menu

Step 5

Complete the form illustrated in Figure 11.4. At the Outline Style prompt, enter **OFFICE** to produce the office outline style shown in Figure 11.1, or **DECIMAL** to produce the decimal outline style shown in Figure 11.2

d i g i t a l

WPS-PLUS/VMS T3.1
Word and Document Processing Menu

Thu 05-Apr-1990

SEL Select

Folder: PARAGRAPH NUMBERING
 Title: Photo

Numbering Style Settings for Table Number 1

Define settings for Table number: 1

Starting paragraph number: 01

Spaces to allow for paragraph number: 02

Outline style: OFFICE

Level 1: <u>B</u>	Level 4: <u>N</u>	Level 7: <u>N</u>
Level 2: <u>A</u>	Level 5: <u>N</u>	Level 8: <u>N</u>
Level 3: <u>N</u>	Level 6: <u>N</u>	Level 9: <u>N</u>

B = Arabic numerals (1,2,3...) n = Arabic numerals (1,2,3...)
 A = Uppercase alphabetic (A,B,C...) a = lowercase alphabetic (a,b,c...)
 R = Uppercase Roman (I,II,III...) r = Lowercase Roman (i,ii,iii...)

Figure 11.4 Second Screen of the Paragraph Numbering Menu

WPS-PLUS creates the documents shown in Figures 11.1 and 11.2 when it runs Paragraph Numbering. You can now read, edit, or print these documents.

11.2 *Storing Paragraph Numbering Abbreviations for Outlines*

Here's a timesaving trick to use when you create a large outline. When you go from one level to another, you usually have to check each heading to make sure the ruler settings are aligned. For convenience in executing this step, create a template, store all your level headings and their appropriate rulers in it, and put it in your Abbreviation document. Now, you'll be able to recall the ruler settings quickly and easily.

Access your Abbreviation document and press **GOLD B** (Bot Docmt) to get to the bottom. Decide on the spacing for each level of header in your outline, or copy our Abbreviation document in Figure 11.5. After you enter all the header levels, file the Abbreviation document.

<< { 1 >>	T-----W-----R
{ 1 }	<<>>
<< { 2 >>	T-----W-----R
{ 2 }	<<>>
<< { 3 >>	T-----W-----R
{ 3 }	<<>>
<< { 4 >>	T-----W-----R
{ 4 }	<<>>
<< { 5 >>	T-----W-----R
{ 5 }	<<>>
<< { 6 >>	T-----W-----R
{ 6 }	<<>>

Figure 11.5 *Abbreviation Paragraph Numbering Document*

When you need a level-1 header, position your cursor at the level-1 area in your document. Press **GOLD =** (Abbrv) and { 1 to bring in the level-1 header and its ruler. Select { 2 for the second-level header, { 3 for the third-level header, and so on.

Follow the steps below to create a new document with Paragraph Numbering:

Step 1

Create a new document and call it *Outline*. Place the cursor at the beginning of the document and press **GOLD = {1**. The level-1 ruler displays in your document. Enter **First-Level Header** and press **RETURN**. Your screen looks like this, with your cursor positioned at the square block:

```
-----T-----W-----R
{1}      | - |
```

Step 2

Press **GOLD = {2**. The level-2 ruler displays in your document. Enter **Second-Level Header** and press **RETURN**.

Step 3

Press **GOLD = {3**. The level-3 ruler displays in your document. Enter **Third-Level Header** and press **RETURN**.

Step 4

Press **GOLD = {1**. The level-1 ruler displays in your document. Enter **Another First-Level Header** and press **RETURN**.

Step 5

Continue to add text and follow Steps 1 – 4 until your document looks like Figure 11.6. File the document.

1	First-Level Header
1.1	Second-Level Header
1.1.1	Third-Level Header
2	Another First-Level Header
2.1	Another Second-Level Header
2.1.1	Another Third-Level Header
3	Another First-Level Header
3.1	Another Second-Level Header
3.1.1	Another Third-Level Header

Figure 11.6 *Finished Outline*

TIP

Don't use the same character in your document that you used as the delimiter.

You can now read, edit, or print *Outline* to check the paragraph numbers and make sure they are aligned. Note that WPS-PLUS automatically rennumbers your outline when you make changes or add sections.

You can now create entire documents by using the Abbreviation document, the Library document, and the Paragraph Numbering option.

Chapter 12

Adding Footnotes and Endnotes

Footnotes and endnotes are an important part of any report. The major difference between footnotes and endnotes is that footnotes print on the bottom of the page where they are referenced, and endnotes print in sequentially numbered groupings at the end of the document. Endnotes are often called references.

WPS-PLUS does not limit the length or the number of footnotes or endnotes you can have in your document. Because footnotes and endnotes are created in the same way, we will refer to them in this chapter as notes.

You can create, edit, delete, duplicate, and print notes. You can also use the Spell Checker, the Grammar Checker, the Thesaurus, and the Usage Alert option to check your notes. You can change the spacing, formatting, and printing of the notes and tailor them to your specific needs.

12.1 *Note Styles*

There are a number of ways to style or design your notes. Some of them are listed here:

- Select the number of blank lines to print between the separator line and the first note.
- Choose any keyboard character to denote the separator line.
- Choose the separator length or position.
- Highlight your note number and/or your note text.
- Specify how much of your page can be used for printing notes.

12.1.1 *Creating Footnotes and Endnotes*

You can add or create notes any time during the document creation cycle. Some people find it easier to create notes while they are writing; others prefer to create them all at the end of the document creation cycle.

Follow these steps to create a note:

Step 1

Enter the following text:

The Freedom Trail is contained within the Boston area. It has been the heart of commerce and the focus of public life since colonial times.

Step 2

Place the cursor on the "s" at the end of the word "times." Press **GOLD Y** (Footnote). The footnote marker displays as an F in reverse video where the note number will be printed. The footnote ruler displays

between the START FOOTNOTE and the END FOOTNOTE markers, as shown here:

```
----- TOP -----
L-----R
The Freedom Trail is contained within the Boston area. It
has been the heart of commerce and the focus of public life
since colonial times. F
----- START FOOTNOTE -----
L-----T-----T-----T-----T-----T-----T-----R
----- END FOOTNOTE -----
```

Step 3

Adjust the ruler to the proper setting. Make sure you leave enough space at the left margin for WPS-PLUS to insert the note number. For example, if your largest note number has three digits, make sure you indent at least three spaces (maybe even four or five spaces) so that the note number can print.

1



Ruler 9 is the ruler that displays when you create a footnote. Store your favorite footnote ruler in Ruler 9.

Step 4

Enter the following text between the START FOOTNOTE and END FOOTNOTE markers:

```
----- TOP -----
L-----R
The Freedom Trail is contained within the Boston area. It has
been the heart of commerce and the focus of public life since
colonial times. F
----- START FOOTNOTE -----
L-----W-----R
    Carmella Giliberto, Giliberto's Boston, Livingstone
    Press, January 1988, page 83.
----- END FOOTNOTE -----
```

Step 5

Press **GOLD F** to file the note and return to your document. The note text no longer displays on your screen. It is stored in the WPS-PLUS buffer area.

12.1.2 *Printing Footnotes and Endnotes*

Display the formatted document on your screen to make any formatting changes before you print it. (See Chapter 3 for more information on creating a document for screen viewing.) When the formatting looks correct, select **P** at the Word and Document Processing menu and enter the settings for printing the document. Press **NEXT SCREEN** to display the Print Settings menu and enter **FS** to display the Footnote Settings menu shown in Figure 12.1.

```
WPS-PLUS Footnote Settings

Footnotes or endnotes (F/E):      E
Minimum lines per page:          1
Lines in the top margin:         6
Lines in the bottom margin:      6
Total lines per page:            66

Separator character (press SPACE for default setting): 10
Separator length:                10
Separator position:              LEFT

Blank lines between last text line and separator line: 1
Blank lines between separator line and first footnote: 0
Blank lines between footnotes:   1

Enter information and press RETURN,
or press NEXT SCREEN for more

(more...)
```

Figure 12.1 WPS-PLUS Footnote Settings

When you print your document using the Footnote option, your page will look like this:

The Freedom Trail is contained within the Boston area. It has been the heart of commerce and the focus of public life since colonial times.¹

One block south of Boylston, on the corner of St. James Avenue and Clarendon Street, stands the tallest building in New England: the 62-story John Hancock Tower, built in the early 1970s.²

The Back Bay is a great neighborhood for ecclesiastical architecture, since many of the old downtown congregations relocated on the newly filled land and applied their considerable resources to building fine new churches.³

-
1. Carmella Giliberto, *Giliberto's Boston*, Livingstone Press, January 1988, page 83.
 2. Alexander Andrew, *Boston Yesterday and Today*, The New Boston Publisher, December 1988, page 129.
 3. Sandra Temple, *Traveling Through Boston with Sandra*, Livingstone Press, March 1989, page 32.

Endnotes print on a separate page at the end of your document. Your page may look like this:

1. Carmella Giliberto, *Giliberto's Boston*, Livingstone Press, January 1988, page 83.
2. Alexander Andrew, *Boston Yesterday and Today*, The New Boston Publisher, December 1988, page 129.
3. Sandra Temple, *Traveling Through Boston with Sandra*, Livingstone Press, March 1989, page 32.



To find out how many lines are in a footnote, insert a NEW PAGE marker at the start of the note text, right after the START FOOTNOTE marker. Move the cursor to the end of the note text and press GOLD Z (Status). The status line tells you how many lines are in the note text. Don't bother to delete the NEW PAGE marker; WPS-PLUS will automatically do it for you when you print your document.

12.1.3

Editing Footnotes and Endnotes

You edit notes in the same way that you edit any other text; all the editing keys work the same. To edit a note, place the cursor at the note marker (displayed as F in reverse video) in your document and press **GOLD Y** (Footnote). The note text displays between the **START** and **END FOOTNOTE** blocks. Edit the note text as you would any **WPS-PLUS** document. Press **GOLD F** to file the note and return to your document.

12.1.4

Deleting Footnotes and Endnotes

To delete the note and the note text, place the cursor at the note marker in your document. Press the **SEL** key and either the **ADVANCE** or the **RIGHT ARROW** key to advance to the end of the note text. Press the **CUT** key to delete the note marker; **WPS-PLUS** deletes both the note marker and the note. Press **GOLD F** to return to your document.



When you delete a note, the other notes are renumbered automatically.

12.1.5

Moving Footnotes and Endnotes

If you're citing the same note more than once, you can copy the original note and place it in another area of your document. You can also move text from the document to the note or from the note to the document.

To move a note to another place in your document, follow these steps:

Step 1

Place the cursor at the note to be moved. Press the **SEL** key and either the **ADVANCE** or the **RIGHT ARROW** key to advance to the end of the note.

Step 2

Press **GOLD CUT** to make a copy of the note. Advance to the position in your document where the second note is to be pasted and press **GOLD PASTE**. The duplicate note now displays in your document, and the notes that follow are automatically renumbered.

Step 3

Press **GOLD F** to return to your document.

12.1.6 *Using Linguistic Tools with Footnotes and Endnotes*

You can use all the WPS–PLUS linguistic tools to check your note text. For more information on these options, see Chapter 10.

12.2 *Customizing Footnotes and Endnotes*

When you accept the WPS–PLUS default settings for your notes, they print in the standard footnote format. However, with the options on the Footnote Settings menu, you can customize your notes in a variety of ways. Table 12.1 lists the Footnote Settings options and how to use them. Here's where the fun comes in: There are so many ways to print notes that you may want to try them all.

Table 12.1 Footnote Settings Options

Option	Function
F or E	To select either footnotes or endnotes. If you choose E (endnotes), the minimum lines per page and the separator character settings do not apply.
Minimum lines	To specify how much of your page can be used for printing footnotes
Lines in the top margin, bottom margin, and total lines per page	See Chapter 3 for the information to enter here
Separator character	To specify the character to be displayed in the separator line. If you don't want a separator line, set the separator length to 0.
Separator length	To decide how long the separator line will be. It cannot extend past the left or right margins.
Separator position	To specify where the separator line prints, either centered or left- or right-justified
Blank lines between last text and separator line	To insert blank lines between the last line of the document text and the separator line
Blank lines between text and separator line	To insert blank lines between the separator line and the first line of note text
Blank lines between notes	To decide how many lines will print between each note

Table 12.1 Footnote Settings Options (Continued)

Option	Function
Numbering scheme	To select the way your note displays in your document. You can select numeric, uppercase or lowercase alphabetic characters, or any other character on the keyboard. You can only use one character for each document. If you selected an asterisk (*), the first note is printed *, the second as **, and so on.
Initial footnote number	To specify the first note number you want printed in your document
Restart number on every page	To restart the numbering of notes on each page
Continuation messages	To decide the message to be displayed when a note continues on another page. Entering Y here prints the message "(Note continued)" at the end of the note text, before it's continued on another page.
Highlight footnote numbers	To specify how the note number in the text and the note number in the note will print
Extra character note number	To have the footnotes preceded by an extra character [for example: 1, 1., 1), (1), or 1/]
Highlight extra characters	To highlight the extra character in note numbers



If you are using a character to indicate notes, WPS-PLUS automatically restarts the character on each page. For example, if you are using an asterisk (*), and you have three footnotes on a page, the first will be designated *, the second **, the third ***. However, on the next page the footnote will revert to one asterisk.

Chapter 13

Putting It All Together

Throughout this book we've shown you how to use WPS-PLUS to create professional documents. Here, we'll show you how to put all your skills together and create a manuscript with a table of contents, a table of authorities, and an index.

When you add specific table tags to your document, WPS-PLUS can automatically generate a table of contents. In addition to creating the table that lists the contents of your document, you can generate a table that lists figures (a table of figures) and a table that lists illustrations (a table of illustrations). Table of contents 2 can refer to the list of figures, table of contents 3 can refer to the list of illustrations, and so on.

You use the same basic procedure to create a table of contents, an outline, a table of authorities, or an index:

1. Mark the text.
2. Select the menu option.
3. Name the output documents.
4. Print the text.

13.1 *Creating the Table of Contents*

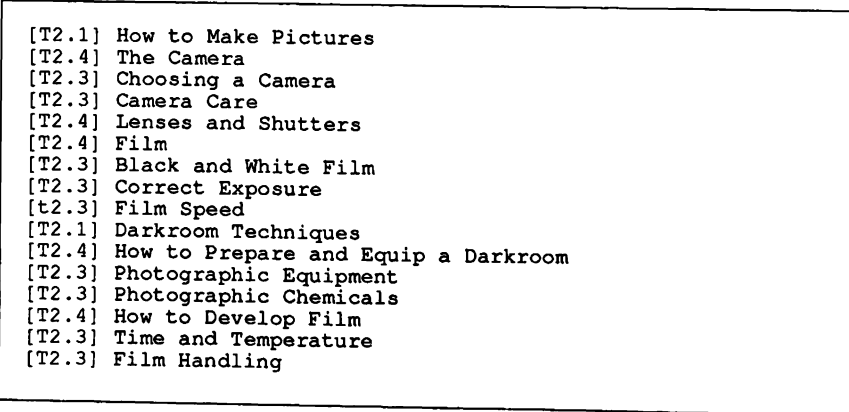
13.1.1 *Mark the Text*

Let's use the same text we used in Chapter 11, Figure 11.1, as an example. Figure 13.1 illustrates the text. We've changed the delimiters to identify the document as a table of contents.

Each table of contents entry needs a table identifier and a table number. The table identifier for a table of contents is either an uppercase T, which prints the level number in the table of contents, or a lowercase t, which omits the level number in the table of contents.

The table number is a number between 1 and 9 to specify which table should contain the entry.

Figure 13.2 identifies each element in the table of contents text.



```
[T2.1] How to Make Pictures
[T2.4] The Camera
[T2.3] Choosing a Camera
[T2.3] Camera Care
[T2.4] Lenses and Shutters
[T2.4] Film
[T2.3] Black and White Film
[T2.3] Correct Exposure
[t2.3] Film Speed
[T2.1] Darkroom Techniques
[T2.4] How to Prepare and Equip a Darkroom
[T2.3] Photographic Equipment
[T2.3] Photographic Chemicals
[T2.4] How to Develop Film
[T2.3] Time and Temperature
[T2.3] Film Handling
```

Figure 13.1 *Text Marked for a Table of Contents*

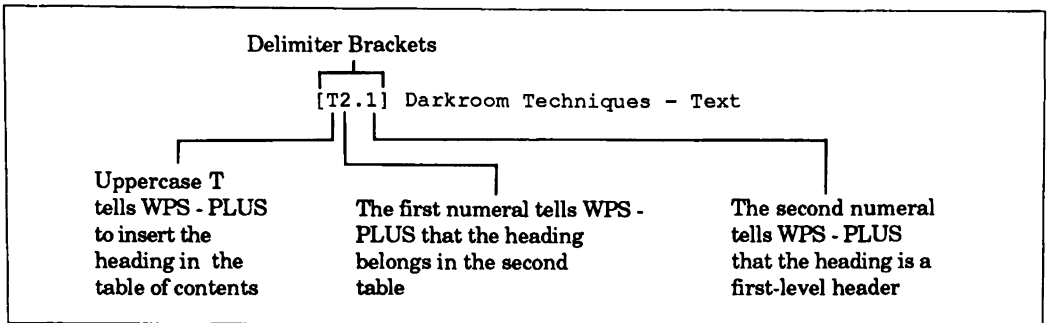


Figure 13.2 Table of Contents Elements



If you don't want the level number to display in the table of contents, use a lowercase t, as in the phrase [t2.3] Film Speed.

13.1.2 *Select the Menu Option*

Enter PN at the Word and Document Processing menu. Complete the form to identify the output document. Figure 13.3 illustrates the menu you use to create a table of contents.

```

digital                                     WPS-PLUS/VMS T3.1      Thu 05-Apr-1990
Word and Document Processing Menu

SEL Select                                Folder: PARAGRAPH NUMBERING
                                          Title:  Photo Markup
: Create                                Date:   Modified on: 04-Apr-1990 11:09
                                          Number: 000067

Paragraph Numbering, Tables, and Indexing

Enter Details for Output Document

Folder: PARAGRAPH NUMBERING
Title:  Photo Markup - Text
Produce a Table of Contents, Index and/or Table of Authorities (Y/N): Y

Delimiters: 1, 1

Enter information and press RETURN, or
press NEXT SCREEN for more fields
  
```

Figure 13.3 Paragraph Numbering Menu for Table of Contents

13.1.3

Name the Documents

Press **TAB** to change any of the fields, or press **RETURN** to accept the settings and advance to the next screen. Fill out the next form to name the actual file that identifies the table of contents. Press **RETURN** after you complete the form. Figure 13.4 illustrates the second screen of the menu used for creating a table of contents.

You can create the table of contents with the decimal or the office outline style.



If you want to change styles, press the **NEXT SCREEN** key, not the **RETURN** key, after you fill in the information for the first screen.

```

digital
WPS-PLUS/VMS T3.1
Word and Document Processing Menu
Thu 05-Apr-1990

SEL Select      Folder: PARAGRAPH NUMBERING
                  Title:  Photo Markup
                  Date:   Modified on: 04-Apr-1990 11:09
C Create       Number: 000067

Paragraph Numbering, Tables, and Indexing

Creating Tables and/or Index

Folder: PARAGRAPH NUMBERING
Title:  Photo - Table of Contents Office Style
Keywords: IQC

Enter information and press RETURN
```

Figure 13.4 Second Screen of Paragraph Numbering Menu for Table of Contents

WPS-PLUS runs Paragraph Numbering and produces your table of contents. You create the markup document, and WPS-PLUS creates the table of contents and the output document. Figure 13.5 illustrates the office style table of contents and output document, and Figure 13.6 illustrates the decimal style table of contents and output document.



For the table of contents to print correctly, each numbered heading in the document must have a right margin of at least 79. Check the rulers preceding each numbered heading to make sure that your right margins are at least 79.

Table of Contents

Table of Contents

I. How to Make Pictures	1
A. The Camera	1
1. Choosing a Camera	1
2. Camera Care	1
B. Lenses and Shutters	1
C. Film	1
1. Black and White Film	1
2. Correct Exposure	1
II. Darkroom Techniques	1
A. How to Prepare and Equip a Darkroom	1
1. Photographic Equipment	1
2. Photographic Chemicals	1
B. How to Develop Film	1
1. Time and Temperature	1
2. Film Handling	1

Markup Document

[T2.1]	How to Make Pictures
[T2.4]	The Camera
[T2.3]	Choosing a Camera
[T2.3]	Camera Care
[T2.4]	Lenses and Shutters
[T2.4]	Film
[T2.3]	Black and White Film
[T2.3]	Correct Exposure
[t2.3]	Film Speed
[T2.1]	Darkroom Techniques
[T2.4]	How to Prepare and Equip a Darkroom
[T2.3]	Photographic Equipment
[T2.3]	Photographic Chemicals
[T2.4]	How to Develop Film
[T2.3]	Time and Temperature
[T2.3]	Film Handling

Output Document

I. How to Make Pictures
A. The Camera
1. Choosing a Camera
2. Camera Care
B. Lenses and Shutters
C. Film
1. Black and White Film
2. Correct Exposure
3. Film Speed
II. Darkroom Techniques
A. How to Prepare and Equip a Darkroom
1. Photographic Equipment
2. Photographic Chemicals
B. How to Develop Film
1. Time and Temperature
2. Film Handling

Figure 13.5 Office Style Table of Contents

Table of Contents

Table of Contents Number 2

1. How to Make Pictures	1
1.1 The Camera	1
1.1.1 Choosing a Camera	1
1.1.2 Camera Care	1
1.2 Lenses and Shutters	1
1.3 Film	1
1.3.1 Black and White Film	1
1.3.2 Correct Exposure	1
2. Darkroom Techniques	1
2.1 How to Prepare and Equip a Darkroom	1
2.1.1 Photographic Equipment	1
2.1.2 Photographic Chemicals	1
2.2 How to Develop Film	1
2.2.1 Time and Temperature	1
2.2.2 Film Handling	1

Markup Document

[T2.1] How to Make Pictures
[T2.4] The Camera
[T2.3] Choosing a Camera
[T2.3] Camera Care
[T2.4] Lenses and Shutters
[T2.4] Film
[T2.3] Black and White Film
[T2.3] Correct Exposure
[t2.3] Film Speed
[T2.1] Darkroom Techniques
[T2.4] How to Prepare and Equip a
Darkroom
[T2.3] Photographic Equipment
[T2.3] Photographic Chemicals
[T2.4] How to Develop Film
[T2.3] Time and Temperature
[T2.3] Film Handling

Output Document

1. How to Make Pictures
 1.1 The Camera
 1.1.1 Choosing a Camera
 1.1.2 Camera Care
 1.2 Lenses and Shutters
 1.3 Film
 1.3.1 Black and White Film
 1.3.2 Correct Exposure
2. Darkroom Techniques
 2.1 How to Prepare and Equip a
Darkroom
 2.1.1 Photographic Equipment
 2.1.2 Photographic Chemicals
 2.2 How to Develop Film
 2.2.1 Time and Temperature
 2.2.2 Film Handling

Figure 13.6 Decimal Style Table of Contents

13.2

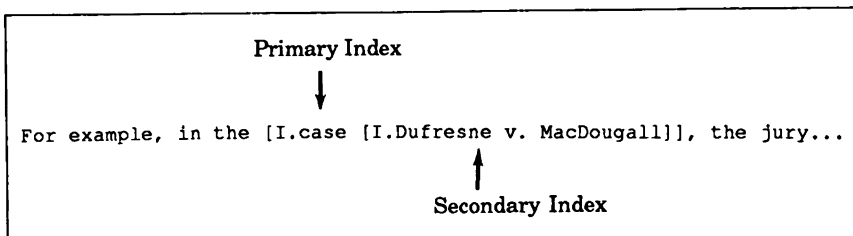


Figure 13.7 *Index Elements*

13.2 *Creating the Index*

You can produce up to nine separate indexes and identify them with numbers 1 through 9. You identify the elements of an index by using an uppercase I or a lowercase i. When you run Paragraph Numbering, you produce two documents, an output document and an index. If you don't want index entries to display in the output document, indicate them with a lowercase i.

You can include secondary indexes by enclosing an index within an index. Remember to use the same number of left and right brackets, as shown in Figure 13.7.

Here are some points to remember as you create an index:

- Keep the target audience in mind.
- Include keywords as entries and subentries in an index. These keywords can include acronyms, mnemonics, commands and qualifiers, proper nouns, special symbols and characters, and language elements.
- Include key information in titles of chapters, sections, figures, and tables.
- Include references to concepts discussed in the document.
- Do not include an index reference for every location of a keyword. Indicate only those locations that contain significant information about the keyword.
- Always use the most specific form of a term for an entry. Use nouns or adjective-noun combinations. Avoid using an adjective alone or an article (a, an, the) as the main entry.

13.2.1

Mark the Text

Copy the text below to use as an example:

In the case of [I.Campbell v. Mamos] and [I.Rist v. Keddle], Andersen's Revocable Trust correctly states, "The Trustee shall hold, manage, invest and reinvest the trust estate, and shall collect the income thereof and dispose of the net income and principal." The more recent decision of [I.Johnson v. Smith] has reaffirmed this rule.



Before you run Paragraph Numbering to produce an index, you must first paginate your document by using Automatic GOLD PAGE, GOLD NEW PAGE, or GOLD PAGE.

13.2.2

Select the Option

Follow the same steps you used to produce the table of contents. Figure 13.8 illustrates the way to fill out the menu for the index.

```

d i g i t a l
WPS-PLUS/VMS 13.1
Word and Document Processing Menu
Thu 05-Apr-1990

SEL Select      Folder: PARAGRAPH NUMBERING
                  Title: Index Example
                  Date: Modified on: 04-Apr-1990 11:15
C Create        Number: 000068

Paragraph Numbering, Tables, and Indexing
Enter Details for Output Document
Folder: PARAGRAPH NUMBERING
Title: Index Example - Output
Produce a Table of Contents, Index and/or Table of Authorities (Y/N): Y
Delimiters: [ , ]

Enter information and press RETURN, or
press NEXT SCREEN for more fields

```

Figure 13.8 Paragraph Numbering Menu for Indexing

Step 1

Enter **PN** at the Word and Document Processing menu. Complete the form to identify the output document.

Step 2

Press **TAB** to change any of the fields, or press **RETURN** to accept the settings and advance to the next screen. Fill out the next form to name the actual file that identifies the index. Press **RETURN** after you complete the form. Figure 13.9 illustrates the second screen of the menu to use to create an index.

The screenshot shows a terminal window with a black background and white text. At the top left is a logo with the word 'digital' in a box. To its right is the text 'WPS-PLUS/VMS T3.1' and 'Word and Document Processing Menu'. In the top right corner is the date and time 'Thu 05-Apr-1990'. Below this, there are two columns of text. The left column has 'SEL Select' and ': Create'. The right column has 'Folder: PARAGRAPH NUMBERING', 'Title: Index Example', 'Date: Modified on: 04-Apr-1990 11:15', and 'Number: 000068'. Below these columns is the text 'Paragraph Numbering, Tables, and Indexing'. Further down is 'Creating Tables and/or Index'. At the bottom, there are three lines of text: 'Folder: PARAGRAPH NUMBERING', 'Title: Index Example Index', and 'Keywords: INDEX'. At the very bottom is the instruction 'Enter information and press RETURN'.

```
digital WPS-PLUS/VMS T3.1 Thu 05-Apr-1990
Word and Document Processing Menu

SEL Select      Folder: PARAGRAPH NUMBERING
                  Title: Index Example
                  Date:  Modified on: 04-Apr-1990 11:15
: Create        Number: 000068

Paragraph Numbering, Tables, and Indexing

Creating Tables and/or Index

Folder: PARAGRAPH NUMBERING
Title: Index Example Index
Keywords: INDEX

Enter information and press RETURN
```

Figure 13.9 Second Screen of Paragraph Numbering Menu for Indexing

13.2.3

Printing the Index

WPS-PLUS runs Paragraph Numbering and produces the index illustrated in Figure 13.10.

WPS-PLUS also produced the following output document, called Index — Output:

In the case of Campbell v. Mamos and Rist v. Keddie, Andersen's Revocable Trust correctly states, "The Trustee shall hold, manage, invest and reinvest the trust estate, and shall collect the income thereof and dispose of the net income and principal." The more recent decision of Johnson v. Smith has reaffirmed this rule.



You may want to include a vocabulary list as another useful document in your documentation set. Here's an easy way to do it. Mark all the words to include in the vocabulary list with a lowercase i. These entries won't appear in your index, but they will print in your output document.

Indices

Index Number 1

Campbell v. Mamos

1

Dufresne v. MacDougall

1

Johnson v. Smith

1

Figure 13.10 *Finished Index*

A table of authorities is similar to an index. It lists cases or names that are cited in a document and lists the page number for each case. The table is organized in alphabetical order for easy reference. For example, a table of authorities might index court cases cited in a legal document.

Just as the table of contents and the index, you can produce up to nine separate tables of authorities and identify them by numbers 1 through 9.

13.3.1**Mark the Text**

We will use part of the same text we used for our index document and change the entries so that they will print as a table of authorities. Enter an uppercase L preceding the text to include these entries in the table of authorities. If you don't want certain entries to appear in the output document, mark these entries with a lowercase l. They will display in the table of authorities but not in the output document.

Enter the following text:

In the case of [L2.Campbell v. Mamos] and [L2.Rist v. Keddle], Andersen's Revocable Trust correctly states, "The Trustee shall hold, manage, invest and reinvest the trust estate, and shall collect the income thereof and dispose of the net income and principal." The more recent decision of [L2.Johnson v. Smith] has reaffirmed this rule.



Before you run Paragraph Numbering to produce an index, you must first paginate your document by using Automatic **GOLD PAGE**, **GOLD NEW PAGE**, or **GOLD PAGE**.

Follow the same steps you used to produce the table of contents. Enter the title **Table of Authorities — Output** for your output document, and enter **Table of Authorities** for the table of authorities itself.

Step 1

Enter **PN** at the Word and Document Processing menu. Complete the form to identify the output document. Figure 13.11 illustrates the menu.

Step 2

Press **TAB** to change any of the fields, or press **RETURN** to accept the settings and advance to the next screen. Fill out the next form to identify the actual file that identifies the table of authorities. Press **RETURN** after you complete the form.

```

digital
WPS-PLUS/VMS T3.1
Thu 05-Apr-1990
Word and Document Processing Menu

SEL Select      Folder: PARAGRAPH NUMBERING
                  Title:  Index Example
                  Date:   Modified on: 04-Apr-1990 11:15
C Create        Number: 000068

Paragraph Numbering, Tables, and Indexing
Enter Details for Output Document

Folder: PARAGRAPH NUMBERING
Title:  Index Example - Subtext
Produce a Table of Contents, Index and/or Table of Authorities (Y/N): Y
Delimiters: | , |

Enter information and press RETURN, or
press NEXT SCREEN for more fields
Leave...!

```

Figure 13.11 Paragraph Numbering Menu for Table of Authorities

Figure 13.12 illustrates the second screen for the menu for the table of authorities.

```
digital WPS-PLUS/VMS T3.1 Thu 05-Apr-1990
Word and Document Processing Menu

SEL Select Folder: PARAGRAPH NUMBERING
Create Title: Index Example
Date: Modified on: 04-Apr-1990 11:15
Number: 000068

Paragraph Numbering, Tables, and Indexing

Creating Tables and/or Index

Folder: PARAGRAPH NUMBERING
Title: Index Example - Table of Authorities
Keywords: IQA

Enter information and press RETURN
```

Figure 13.12 Second Screen of Paragraph Numbering Menu for Table of Authorities

13.3.3 *Printing the Table of Authorities*

WPS-PLUS runs Paragraph Numbering and produces your table of authorities. Figure 13.13 shows a completed table of authorities.

The same option also produced the output document, *Table of Authorities — Output*:

Campbell v. Mamos and Rist v. Keddle. Andersen's Revocable Trust correctly states, "The Trustee shall hold, manage, invest and reinvest the trust estate, and shall collect the income thereof and dispose of the net income and principal." The more recent decision of Johnson v. Smith has reaffirmed this rule.

Table of Authorities	
Table of Authority Number 2	
Campbell v. Mamos	1
Johnson v. Smith	1
Rist v. Keddle	1

Figure 13.13 *Completed Table of Authorities*

Chapter 14

Transferring Documents

The document conversion utility of WPS-PLUS makes it fast and easy to transfer documents between WPS-PLUS/ALL-IN-1, WPS-PLUS/VMS, DECmate, and any disk operating system (DOS).

14.1 *DECmate*

14.1.1 *Transfers to WPS-PLUS/ALL-IN-1 and WPS-PLUS/VMS*

The Document Transfer menu option allows you to transfer documents between the ALL-IN-1 File Cabinet and the DECmate.

The steps for transferring a document from the DECmate to WPS-PLUS/ALL-IN-1 and WPS-PLUS/VMS are the same. Follow the steps below to transfer a document from the DECmate to your ALL-IN-1 File Cabinet or to WPS-PLUS/VMS:

Step 1

Enter **WP** from the ALL-IN-1 Professional Workstation menu. If you are not working through ALL-IN-1, omit this step and proceed to Step 2.

Step 2

Enter **DT** from the Word and Document Processing menu and press **RETURN**. You will advance to the Document Transfer menu.

Step 3

At the Document Transfer menu, enter **RD**, press **RETURN**, and enter the name or the number of the DECmate document to be sent. Use the **TAB** key to advance through the fields, and complete the information on the form. Press **RETURN** to begin the document transfer.

The system displays the Create from DECmate form. The current folder name displays, and the cursor is on the title field.

Step 4

Enter the title and keywords for the document and press **RETURN**. The system invokes the necessary communications options and displays the Document Transfer menu. When the transfer completes, press **GOLD M** to return to the ALL-IN-1 Professional Workstation menu or to the WPS-PLUS Word and Document Processing menu.

14.1.2 From WPS-PLUS/ALL-IN-1 and WPS-PLUS/VMS

Follow the steps below to send a document to the DECmate:

Step 1

At the ALL-IN-1 menu, enter **WP** and press **RETURN**. If you are not working through ALL-IN-1, omit this step and proceed to Step 2.

Step 2

Enter **DT** and press **RETURN** to advance to the Document Transfer menu.

Step 3

At the Document Transfer menu, enter **SD** and press **RETURN**. At the prompt, enter the name or the number of the document to be sent to the DECmate, or press **TAB** if the document displayed is the document to be transferred. Use the **TAB** key to advance through the fields, and complete the information on the form, specifying the disk and volume number on which the DECmate document is to be created. Press **RETURN** to complete the form and begin the document transfer. The system invokes the necessary communications options and displays the Document Transfer menu. When the transfer is complete, press **GOLD M** to return to the **ALL-IN-1 Professional Workstation** menu or to the **WPS-PLUS Word and Document Processing** menu.

14.2 *Disk Operating Systems (DOS)*

Information created on any disk operating system (DOS) can be transferred to a **WPS-PLUS/ALL-IN-1** account on the **VAX** to make distribution of documents faster and easier.

14.2.1 *From WPS-PLUS/ALL-IN-1*

Follow the steps below to transfer a document from your **WPS-PLUS/ALL-IN-1 File Cabinet** to your **WPS-PLUS/DOS File Cabinet**. If you are in **Windows**, you must close out all windows before you begin.

Step 1

Enter **CD\WPSDOS** and press **RETURN** at the **C:\>** prompt to change to the **WPSDOS** directory. The screen displays the prompt **C:\WPSDOS>**.

Step 2

At the prompt, enter **WPS** and press **RETURN**. At the next prompt, enter **WP** and press **RETURN**. The screen displays the **WPS-PLUS** Word and Document Processing menu. Select **C** and press **RETURN** to create a new document. Fill in the blanks as shown in the following sample, and file the empty document.

```
Drawer: HARD DISK DRAWER
Folder: New Folder
Title: File Name
```

Step 3

Press the **ADVANCE** key to return to the **WPS-PLUS/DOS** main menu.

Step 4

Enter **COM** and press **RETURN** to display the Communications menu. Enter **TE** and press **RETURN**. You will now log on to the host system. Check with your system manager for the procedure for connecting to the host system. For example, after pressing **BREAK** or **RETURN**, the host system may display the following prompts:

```
Local>      Enter C[nodename] and press RETURN.
Username>   Enter [yourname] and press RETURN.
Password>   Enter [yourpassword] and press RETURN.
```

Press **CTRL/W** to clear the screen of extra characters, if necessary.

Step 5

At the \$ prompt, enter **ALLIN1** and press **RETURN** to display the **ALL-IN-1 Professional Workstation** menu. Enter **WP** and press **RETURN** to select the document to be transferred.

Step 6

Enter **DT** and press **RETURN** to transfer the document. Enter **SD** and press **RETURN** at the Document Transfer menu to send the document from the host to the WPS-PLUS/DOS File Cabinet on your PC. The screen automatically displays the document name in the upper right display box. To change the document name, enter the new name and press **RETURN**. You do not need to change the default values for the remaining fields.

The screen displays the message "WPS-PLUS/DOS 3.0 Document Transfer" and a copy of your document is now on the hard disk.

Repeat Steps 2 and 3 to send another document.

14.2.2 To WPS-PLUS/ALL-IN-1

Follow the steps below to transfer a document from your WPS-PLUS/DOS File Cabinet to your WPS-PLUS/ALL-IN-1 File Cabinet:

Step 1

Enter **CD\WPSDOS** and press **RETURN** at the **C:\>** prompt to change to the WPS-PLUS/DOS subdirectory.

Step 2

At the **C:\WPSDOS>** prompt, enter **WPS** and press **RETURN**. At the prompt, enter **WP** and press **RETURN**. Enter **SEL** and press **RETURN** to select the document to be transferred. Enter the folder and title of the document to be transferred to the host. Press the **ADVANCE** key to return to the WPS-PLUS/DOS main menu. Enter **COM** and press **RETURN** to select the Communications option.

Step 3

Enter **TE** and press **RETURN** to select the Terminal Emulation utility. Check with your system manager for the procedure for connecting to the host system. For example, after pressing **BREAK** or **RETURN**, the host system may display the following prompts:

```
Local>      Enter C[nodename] and press RETURN.
Username>   Enter [yourname] and press RETURN.
Password>   Enter [yourpassword] and press RETURN.
```

Step 4

At the \$ prompt, enter **ALLIN1** and press **RETURN** to display the **ALL-IN-1 Professional Workstation** menu. At that menu, enter **WP** and press **RETURN** to access the **WPS-PLUS/ALL-IN-1 Word and Document Processing** menu. Enter **DT** and press **RETURN** to start the transfer. Enter **RD** and press **RETURN** at the **Document Transfer** menu. Enter the name of the document you are receiving from the PC and press **RETURN**. Specify the folder and the title for the document to be created on the PC.

14.2.3 From WPS-PLUS/VMS

The procedure for transferring documents from your **WPS-PLUS/VMS File Cabinet** to your **WPS-PLUS/DOS File Cabinet** is similar to the procedure for the **WPS-PLUS/ALL-IN-1** transfer. Follow the instructions for transferring documents from **WPS-PLUS/ALL-IN-1** until you get to Step 3 under the **WPS-PLUS/DOS** main menu. When you log on to the host system, enter **WPS** and press **RETURN**.

Follow the instructions below to transfer your document from WPS-PLUS/VMS to WPS-PLUS/DOS:

Step 1

Select the document to be transferred.

Step 2

Enter **DT** and press **RETURN** to transfer the document.

Step 3

Enter **SD** and press **RETURN** at the Document Transfer menu to send the document from the host to the WPS-PLUS/DOS File Cabinet on the PC. The screen automatically displays the document name in the upper right display box. To change the document name, enter the new name and press **RETURN**. You do not need to change the default values for the remaining fields. When the screen displays the message "Document sent to the DECmate," a copy of your document is on your PC hard disk.

If you want to stay logged in to the VAX system, simply press the **F4** key to return to the PC hard disk.

For more detailed instructions on this procedure, see Chapter 8 of the *WPS-PLUS/DOS User's Guide*, Version 3.0, Volume 2.

14.2.4 To WPS-PLUS/VMS

The steps for transferring a document from WPS-PLUS/DOS to WPS-PLUS/VMS are the same steps used in the WPS-PLUS/DOS to WPS-PLUS/ALL-IN-1 transfer, except that you do not access the WPS-PLUS package under ALL-IN-1.

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